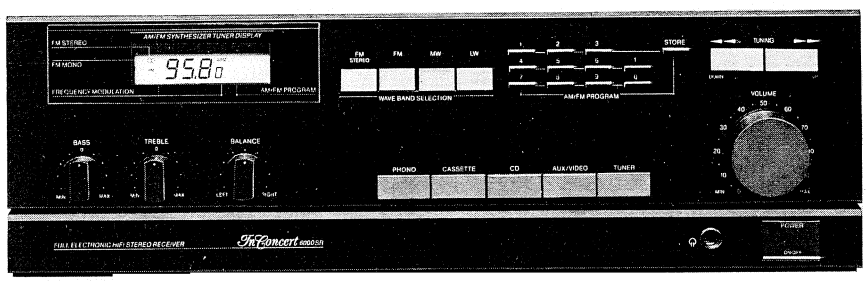
Serviceanweisung

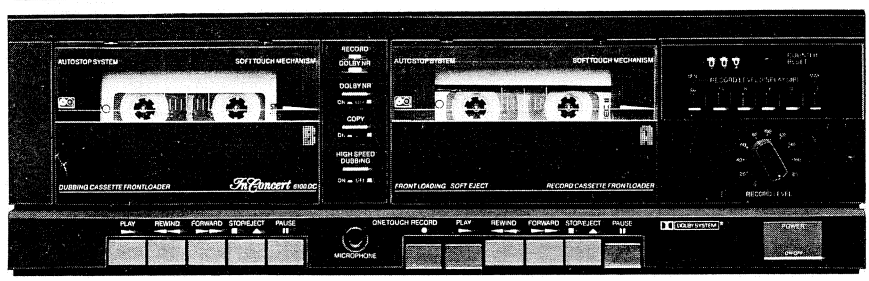
Service manual

In Concert 6000 SR
6100 DC
6200 EQ
6100 ST
6200 ST
6100 PA
6200 PA

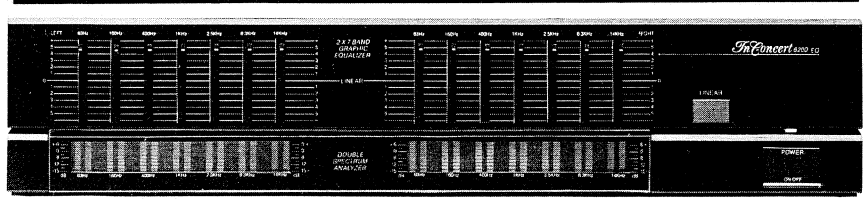
6000 SR	Ident-Nr. 4206400
6100 DC	Ident-Nr. 4206500
6200 EQ	Ident-Nr. 4206600
6100 ST	Ident-Nr. 4201500
6200 ST	Ident-Nr. 4201700
6100 PA	Ident-Nr. 4201400
6200 PA	Ident-Nr. 4201600



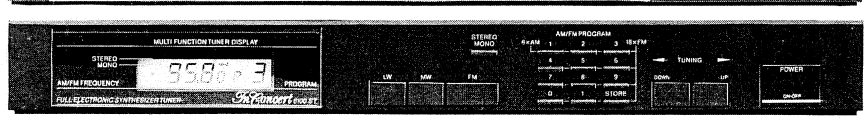
6000 SR



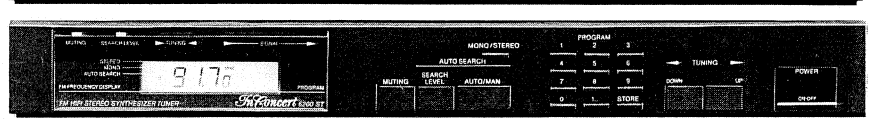
6100 DC



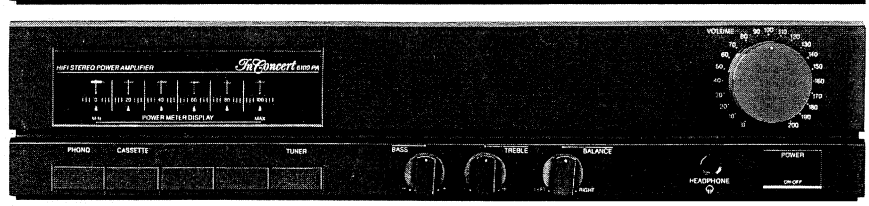
6200 EQ



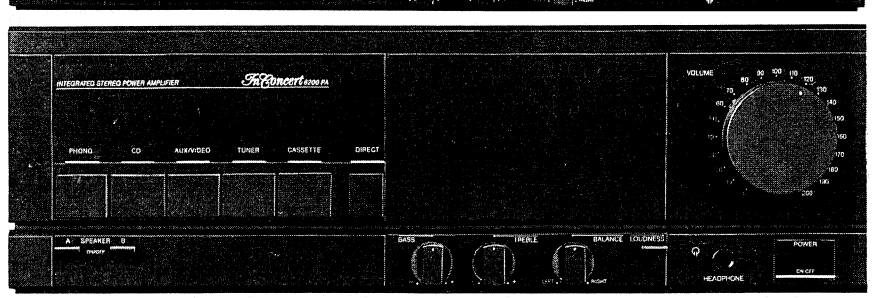
6100 ST



6200 ST



6100 PA



6200 PA

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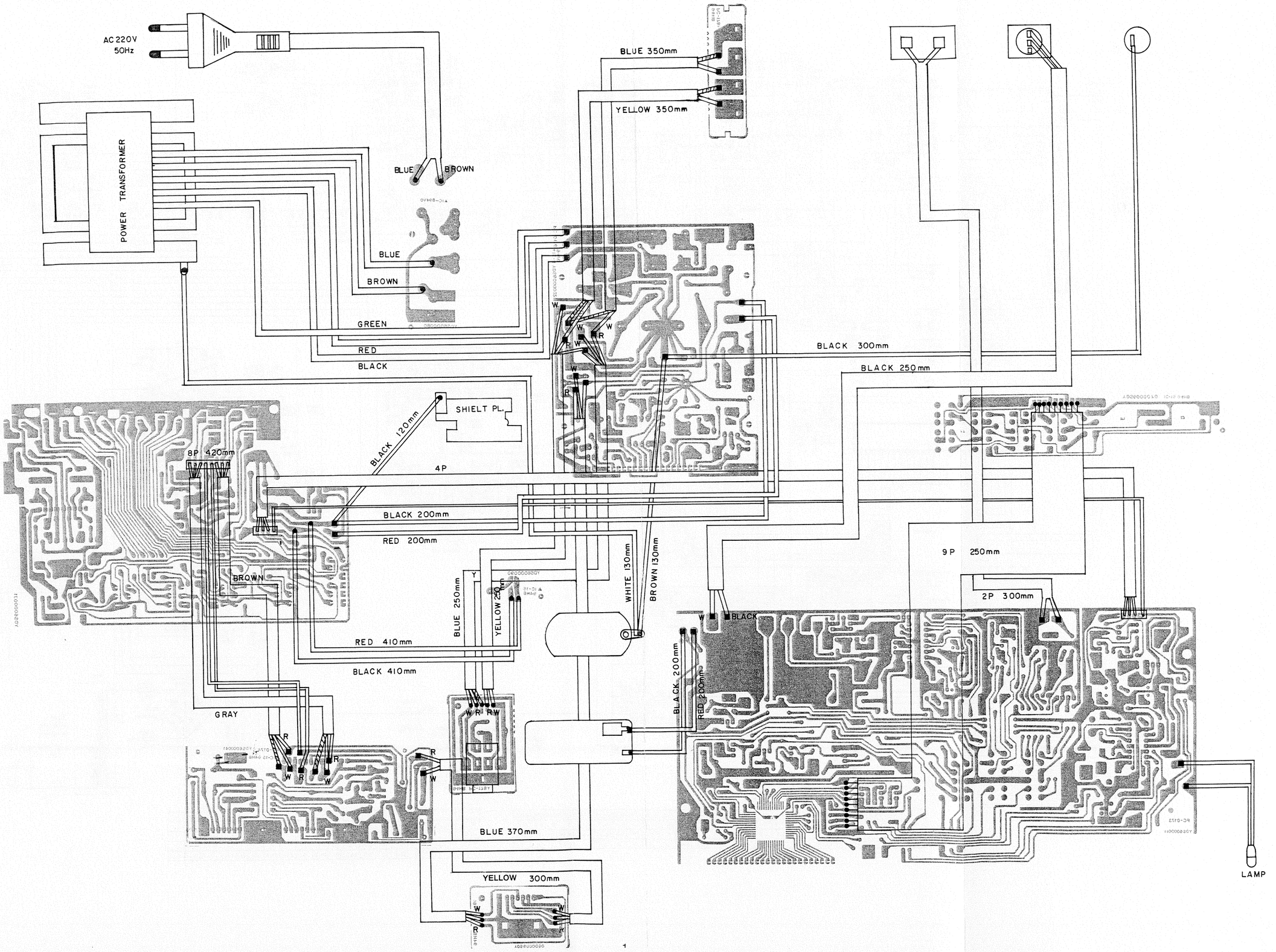
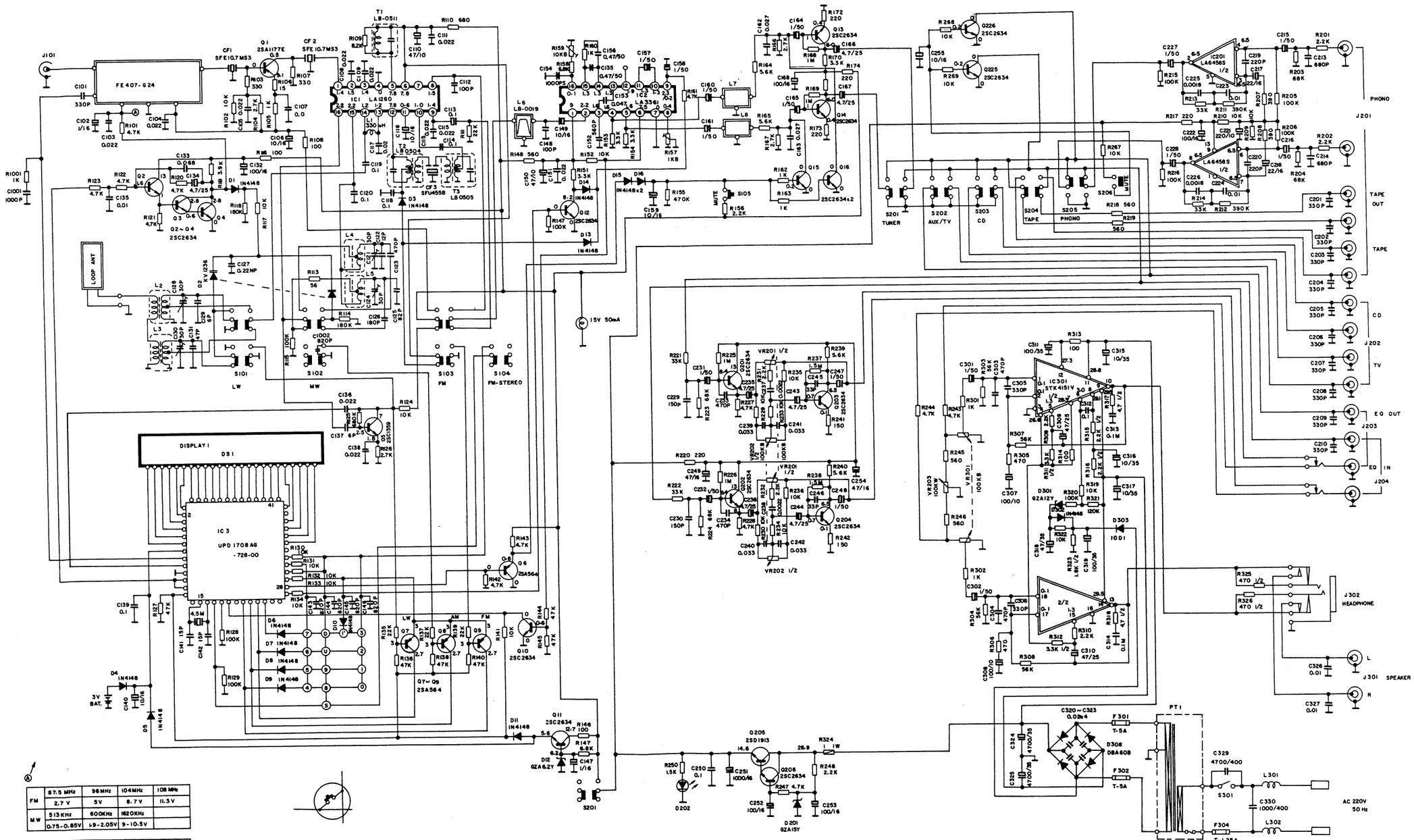
Verdrahtungsplan 6000 SR
Wiring diagram 6000 SR



Schaltbild 6000 SR
Circuit diagram 6000 SR



	87.5 MHz	96 MHz	104 MHz	108 MHz
FM	2.7 V	5V	8.7 V	11.3 V
MW	513 KHz	600 KHz	1620 KHz	
	0.75-0.85V	1.9-2.05V	9-10.5V	

	137 KHz	160 KHz	290 KHz	
LW	0.65-0.72V	1.9-2.05V	5.9-6.3V	

	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q201	Q202	Q203	Q204	Q205	Q206	Q225	Q226
B	0	1.6	0	0.6	2.5	0	LW 3	MW 3	FM 3	0.6	6.2	0	1	1	0.2	0.2	8.4	8.4	0.7	0.7	15	15	0.2	0.2
C	0.5	13	2.8	2.8	7	0	2.7	2.7	2.7	0	12.7	8.2	6.0	6.0	0	0	13	13	6.5	6.5	28.9	28.9	0	0
E	9.1	1	0.6	0	1.8	0.6	3	3	3	0	5.6	0	0.4	0.4	0	0	8	8	0.1	0.1	14.6	15	0	0

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
IC 1	1.4	1.5	1.4	0	7.8	7.8	0	1.5	1.4	1.0	0.6	7.8	1.2	1.2	2.2	2.2		
IC 2	9	2.2	1.8	1.6	1.6	7.5	0	0.4	2.3/0.2	1.3	1.3	1.9	1.3	1.3	1.3	0.1		
IC 201	0	6.5	6.5	6.5	0	6.5	6.5	6.5	13									
IC 301	0.1	0.1	0	26.6	1.3	3.0	28.3	29.1	29.5	0	28.8	27.3	0	29.5	1.3	0	0.1	0.1

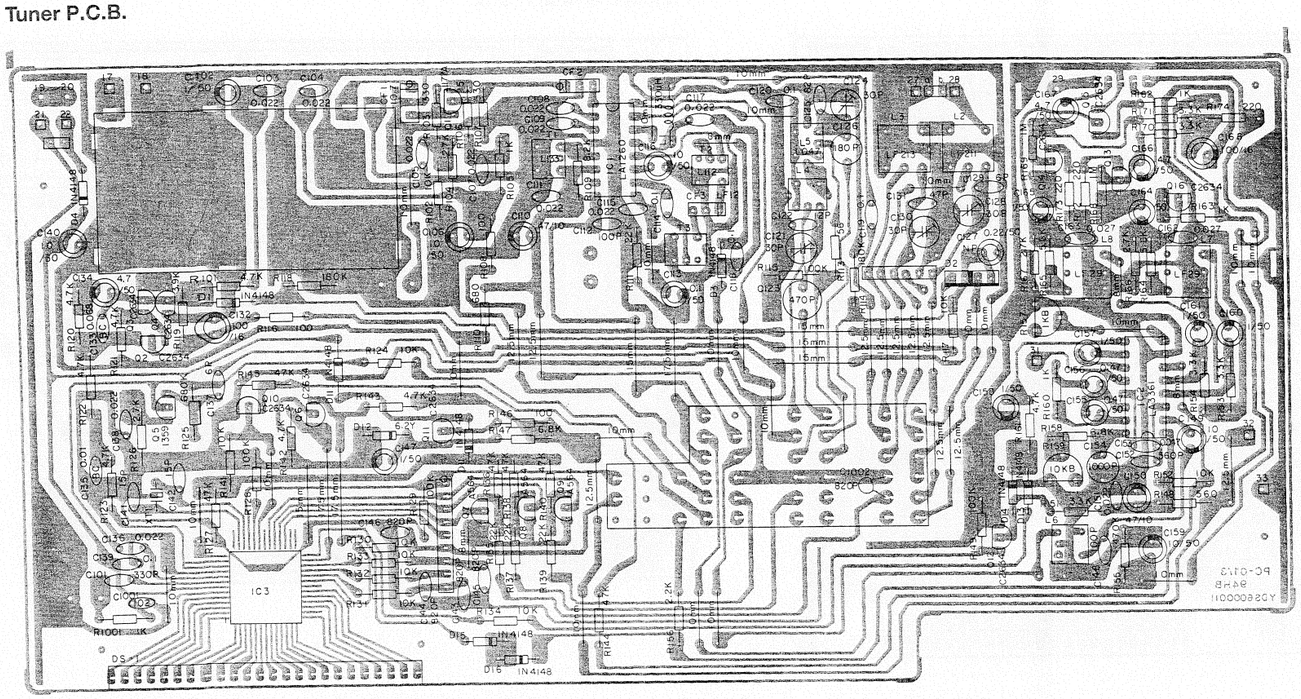
Platinendarst ellungen 6000 SR

P.C.B. diagrams 6000 SR

Bestückungsseite/Top view

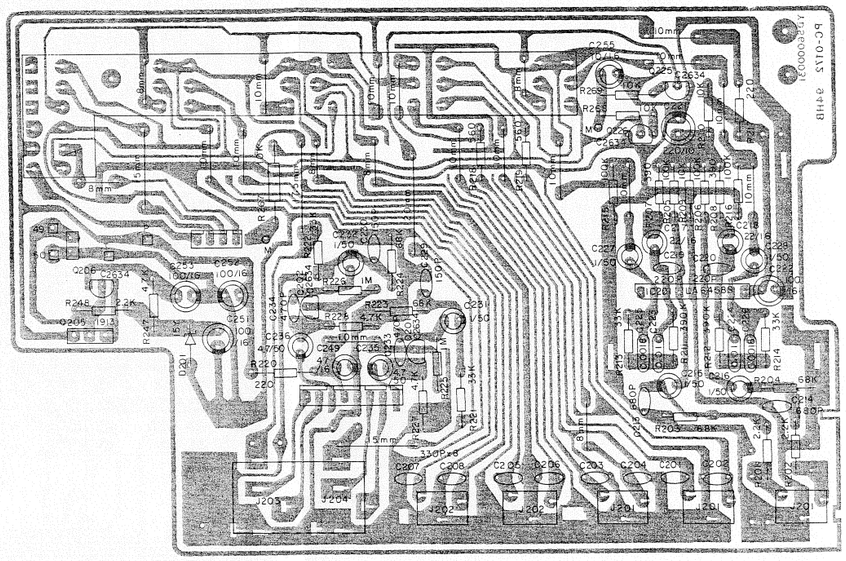
Tunerplatine

Tuner P.C.B.



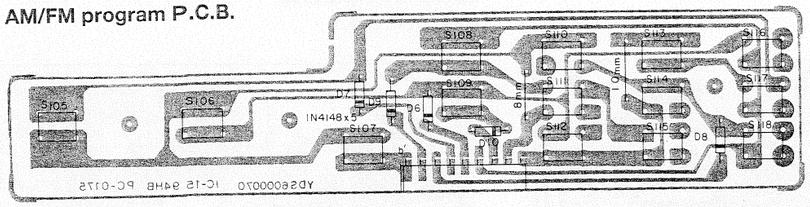
Quellenschalterplatine

Function switch P.C.B.



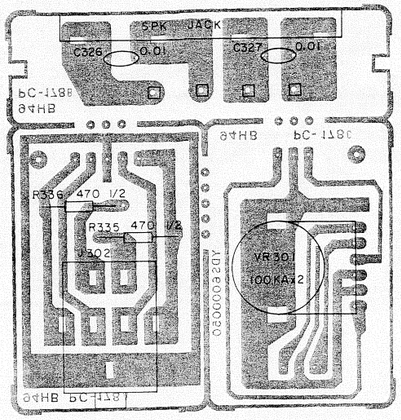
AM/FM Programmplatine

AM/FM program P.C.B.



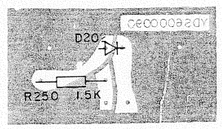
Regler/-Buchsenplatine

Poti/jack P.C.B.



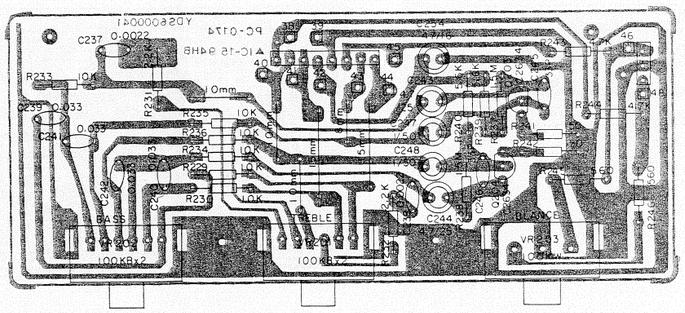
LED-Platine

LED P.C.B.



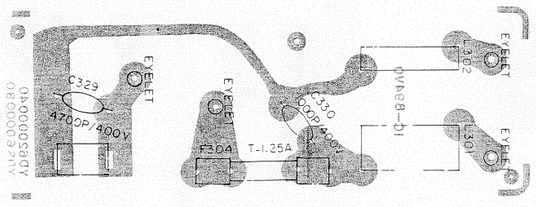
Klangreglerplatine

Tone control P.C.B.



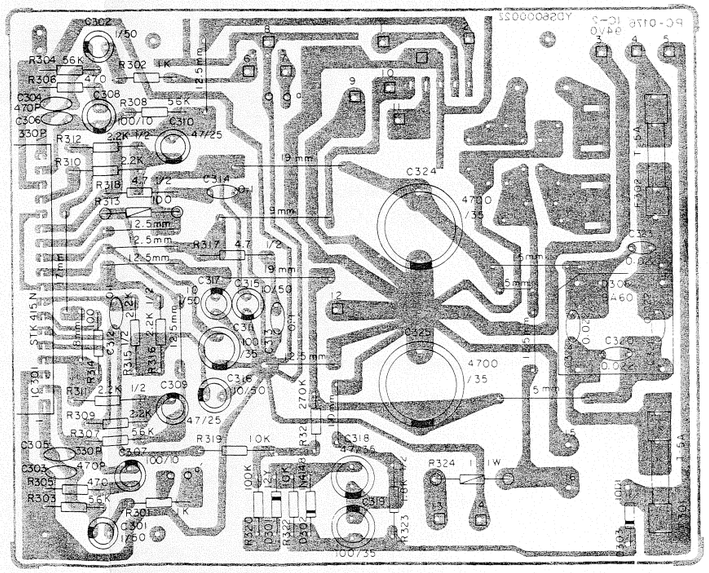
Netzschalterplatine

Power switch P.C.B.



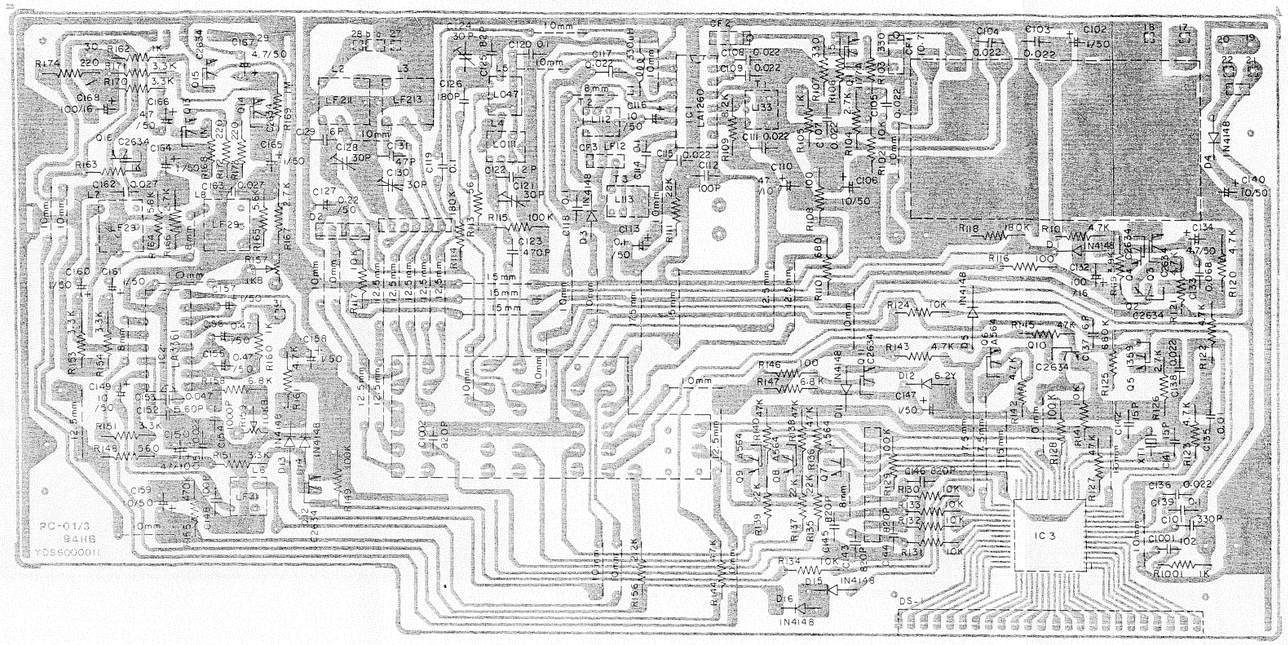
Endstufenplatine

Output P.C.B.

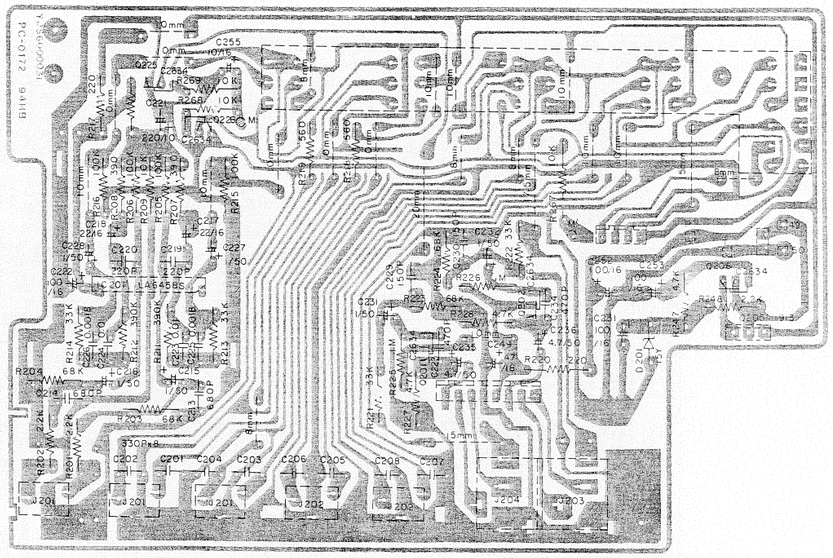


Platinendarstellungen 6000 SR
P.C.B. diagrams 6000 SR
Leiterbahnseite/Bottom view

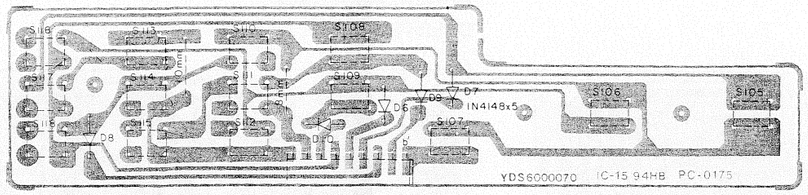
Tunerplatine
Tuner P.C.B.



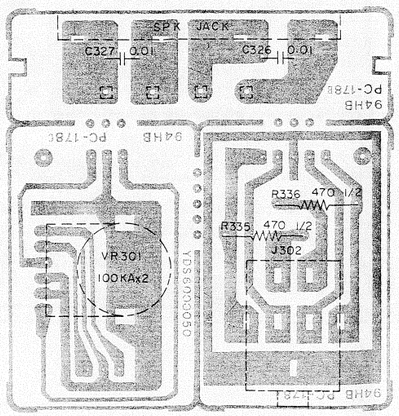
Quellenschalterplatine
Function switch P.C.B.



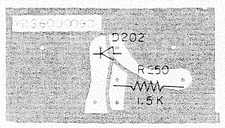
AM/FM Programmplatine
AM/FM program P.C.B.



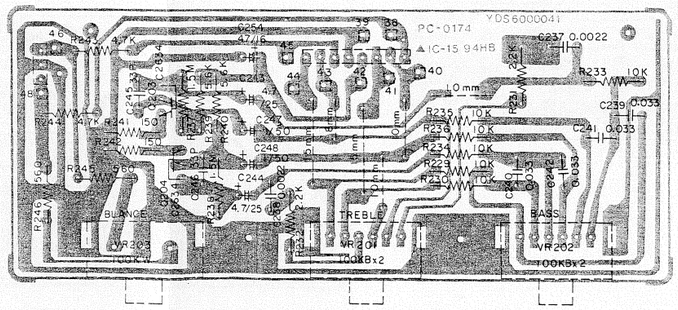
Regler/-Buchsenplatine
Poti/jack P.C.B.



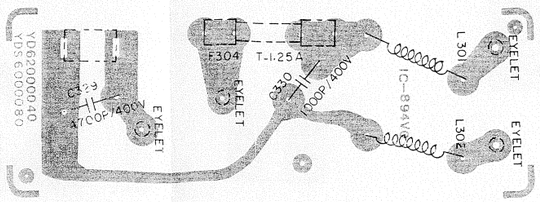
LED-Platine
LED P.C.B.



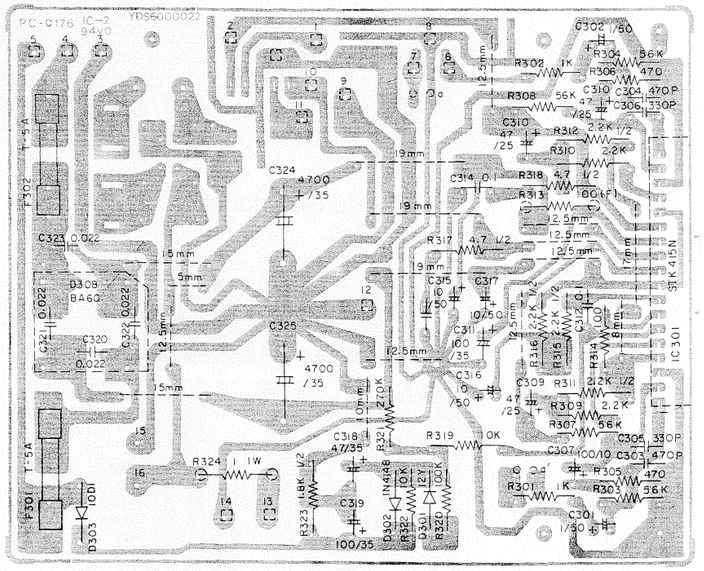
Klangreglerplatine
Tone control P.C.B.



Netzschalterplatine
Power switch P.C.B.



Endstufenplatine
Output P.C.B.



Abgleichanweisung 6000 SR
Alignment procedure 6000 SR

Condition

Amplitude Modulation (AM)

1. Modulation : 30% 1KHz
2. Input level : 74dB / m (5mV / m).
3. Generator output : IRE Loop 24 in (60cm) spacing.

Frequency Modulation (FM)

1. Modulation : 1000 Hz with 40 KHz
2. Input level : 60dB (1mV)
3. Generator output : To the antenna terminal trough 75 ohm unbalanced dummy antenna.

Frequency Modulation (MPX)

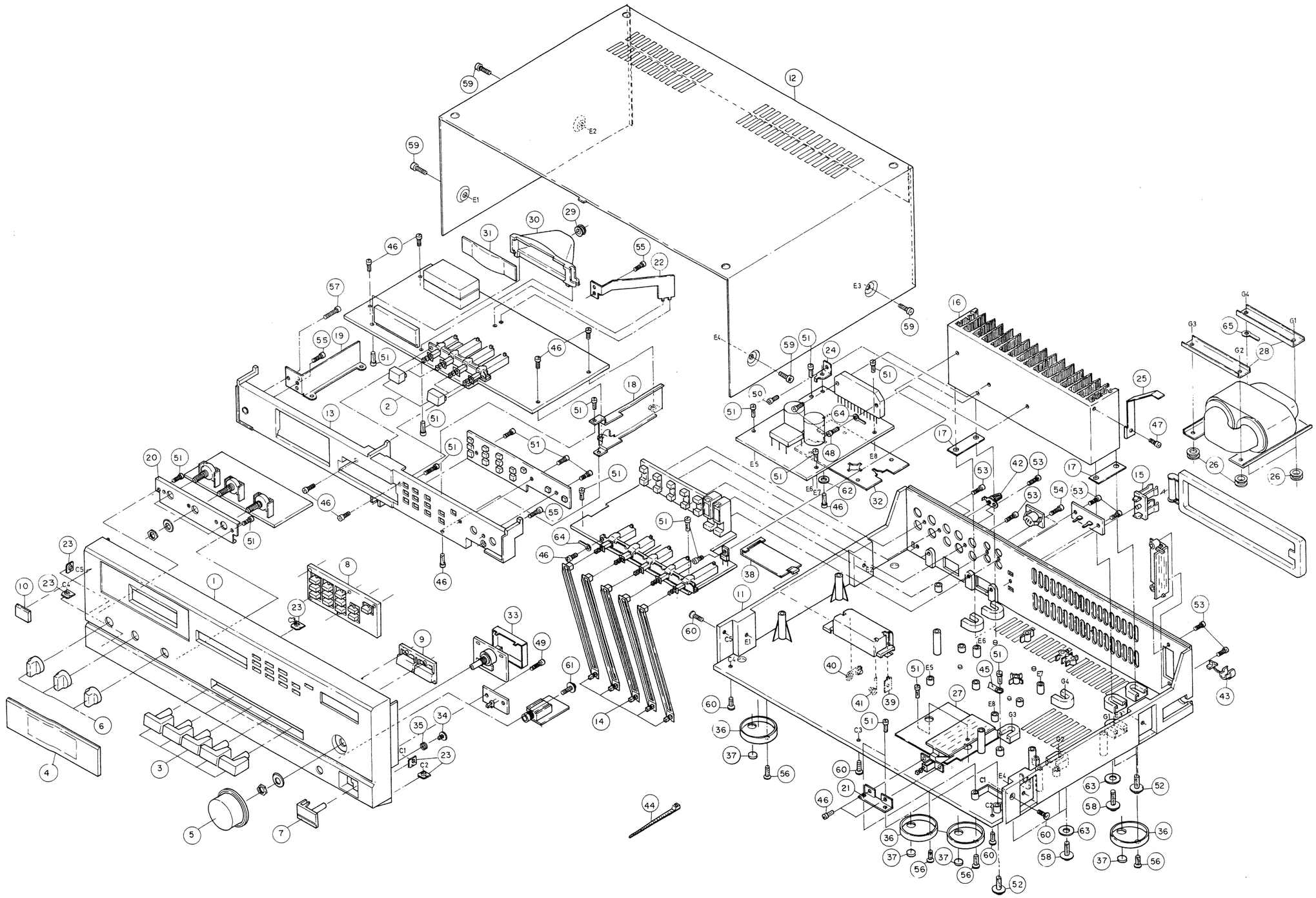
1. Modulation : 1000 Hz , L or R channel only
   Main carrier (L+R) 40 KHz Dev.
   Sub currier (L-R) 40 KHz Dev.
   19 KHz pilot 6 KHz Dev.

STEP	Signal or Sweep Generator		Dial Setting	Output Indicator	Adjustor	Adjust for
	Connection	Frequency		Connection		
	AM IF					
1.	Set the function selector to "MW"					
2.	To Loop antenna	455 KHz	Low end	IF Sweep geenerator R 210	T2/T3	Flat and MAX.
	MW RF					
3.	SAME AS STEP (2)	513 KHz	513 KHz	SAME AS STEP (3)	L 4	MAX
4.	SAME AS STEP (2)	1620 KHz	1620 KHz	SAME AS STEP (3)	C 121	MAX
5.	SAME AS STEP (2)	600 KHz	600 KHz	SAME AS STEP (3)	L 2	MAX
6.	SAME AS STEP (2)	1400 KHz	1400 KHz	SAME AS STEP (3)	C 128	MAX
7.	Repeat (5) and (6)					
	LW RF					
8.	Set the function selector to "LW"					
9.	SAME AS STEP (2)	137 KHz	Low end	SAME AS STEP (3)	L 5	137 +- 5 KHz
10.	SAME AS STEP (2)	290 KHz	High end	SAME AS STEP (3)	C 124	290 +- 5 KHz
11.	SAME AS STEP (2)	160 KHz		SAME AS STEP (3)	L 3	MAX
12.	SAME AS STEP (2)	250 KHz		SAME AS STEP (3)	C 130	MAX
13.	Repeat steps (11) and (12)					
	FM IF					
14.	Set the function selector to "FM"					
15.	Throught dummy ant	10.7 MHz	Low end	IF Sweep generator R 209	T 1	"S" curve
	FM 19 KHz Pilot signal					
16.				Frequency counter R 263	R 157	19 +- 0.01KHz
	Stereo L/R Sepration					
17.			98 MHz	VTVM Scope Pilot Generator SSG	R 159	

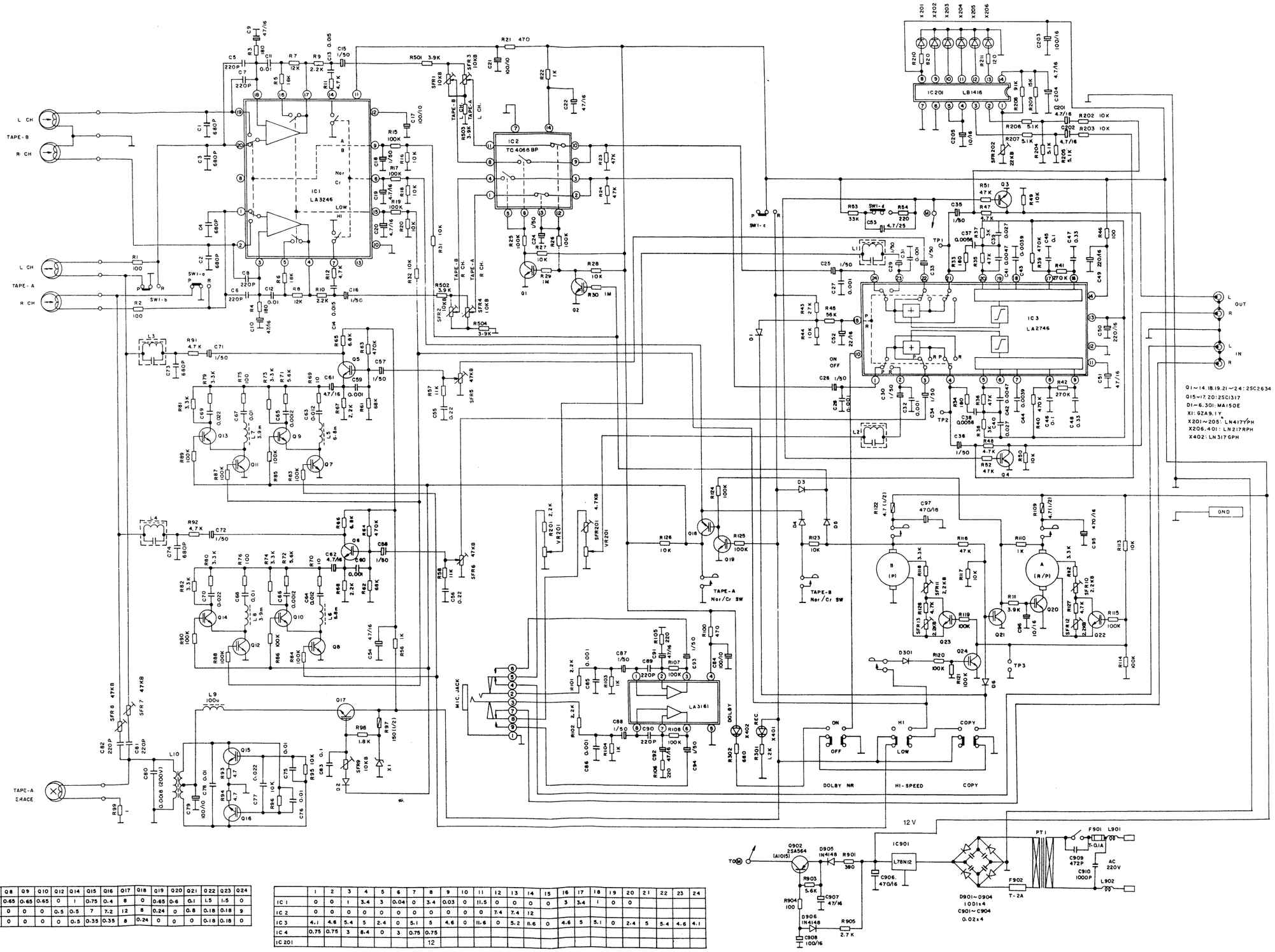
Ersatzteilliste 6000 SR
Spare parts list 6000 SR

Bestell-Nr./Part. No.	Bezeichnung	Description	Position	Preisgruppe/ Price group
45 368 00	Frontblende	Front panel	1	C 6
45 369 00	Tastenknopf Band	Function button (A)	2	A 2
45 370 00	Tastenknopf Quelle	Function button (B)	3	A 2
45 371 00	Fenster LCD	Window LCD	4	B 1
45 372 00	Drehknopf Lautstärke	Knob VR	5	B 3
18 141 00	Drehknopf Klang	Knob sound	6	A 5
18 220 00	Tastenknopf Power	Knob power	7	A 4
45 373 00	Tastenfeld Programm	Preset button program	8	A 8
45 374 00	Tastenfeld Tuning	Preset button tuning	9	A 3
41 107 00	Schriftzug Schneider	Badge Schneider	10	A 5
45 375 00	Gehäusedeckel	Cabinet	12	E 0
45 376 00	Schaltstange Funktionsschalter	Function relay bar	14	A 4
45 377 00	Halter AM-Antenne	Holder antenna	15	A 4
45 378 00	Reflektor Display	Lamp reflector	30	A 4
40 266 00	Plexiglas weiß, matt	Lamp reflector plate	31	A 4
23 925 00	Stöpsel-Taste	Knob spacer	34	A 1
31 126 00	Druckfeder	Spring	35	A 0
18 143 00	Gehäusefuß	Feet	36	A 3
37 995 00	Batteriedeckel	Battery cover	38	A 3
45 379 00	Masseanschluß	Bolt terminal	42	A 4
45 380 00	Antenne-AM	AM loop antenna	66	C 2
29 651 00	Tastschalter	Tact switch	S 105-118	A 3
14 319 00	Netzschalter	Power switch	Power	B 6
45 381 00	Tastensatz 4fach Band	Band switch	S 101-5	C 2
45 382 00	Tastensatz 5fach Quelle	Function switch	S 201-6	C 4
24 377 00	Trimmer 30 pF	Trimmer 30 pF	C 121-130	A 3
05 886 00	Elko 4700 µF 50 V	Elec. Capazitor 4700 µF 50 V/c	C 324-5	B 9
37 022 00	Trimmpoti 1 K	Semi fixed resistor 1 K	R 157	A 3
32 588 00	Trimmpoti 10 K	Semi fised resistor 10 K	R 159	A 3
45 383 00	Drehwiderstand Lautstärke 100 K	Rotary resistor 100 K vol.	VR 301	B 2
45 384 00	Drehwiderstand Balance 100 K	Rotary resistor 100 K bal.	VR 203	B 1
45 385 00	Drehwiderstand Klang 100 K	Rotary resistor 100 K sound	VR 201-1	B 3
06 419 00	Sicherungswiderstand 100 R 0,25 W	Fuse rsistor 100 R 0.25 W	R 313	A 6
40 296 00	Sicherungswiderstand 1 R 1 W	Fuse resistor 1 R 1 W	R 324	A 3
31 482 00	Quarz 4,5 MHz	X'tal 4.5 MHz	XT 1	A 8
18 155 00	Display-Anzeige	Display	DS 1	C 3
40 306 00	Tuner	Tuner	F 1	D 6
44 091 00	Lampe Display	Lamp display	PL 1	A 5
45 386 00	Netztrafo	Power transformer		E 7
13 986 00	Kopfhörerbuchse 6,3 mm	Headphone jack 6.3 mm	J 302	B 0
13 653 00	Antennenbuchse FM	Antenna jack FM		B 0
45 387 00	Lautsprecheranschlußleiste	Speaker jack	J 301	B 2
22 985 00	AM-Anschluß	Terminal AM		A 5
45 388 00	Chinch-Buchse 2fach Equalizer	Chinch jack 2-pin Equalizer	J 203-4	B 2
45 389 00	Chinch-Buchse 4fach	Chinch jack 4-pin	J 202	B 2
45 390 00	Chinch-Buchse 6fach	Chinch jack 6-pin	J 201	B 4
24 533 00	Transistor 2 SC 2634 S	Transistor 2 SC 2634 S	...	A 3
12 036 00	Transistor 2 SA 564 Q	Transistor 2 SA 564 Q	Q 6-9	A 8
37 957 00	Transistor 2 SA 1177 E	Transistor 2 SA 1177 E	Q 1	A 3
12 093 00	Transistor 2 SC 1359 B	Transistor 2 SC 1359 B	Q 5	A 3
44 764 00	Transistor 2 SD 1913 R/S	Transistor 2 SD 1913 R/S	Q 205	A 1
26 797 00	IC LA 1260	IC LA 1260	IC 1	B 4
31 481 00	IC UPD 1708 AG-728-00	IC UPD 1708 AG-728-00	IC 3	D 2
21 596 00	IC LA 3361	IC LA 3361	IC 2	B 1
45 391 00	IC STK 4151 V	IC STK 4151 V	IC 301	D 7
24 151 00	IC LA 6458 S	IC LA 6458 S	IC 201	A 9
11 241 00	Diode 1N 4148	Diode 1N 4148	...	A 2
40 288 00	Diode KV 1236 Z	Diode KV 1236 Z	D 2	B 7
45 392 00	Brückengleichrichter DBA 60 B	Rectifier DBA 60 B	D 308	B 9
12 039 00	Diode 10 D 1	Diode 10 D 1	D 303	A 4
26 701 00	Z-Diode GZA 12 Y	Z-Diode GZA 12 Y	D 301	A 3
21 413 00	Z-Diode GZA 15 Y	Z-Diode GZA 12 Y	D 201	A 2
21 350 00	Z-Diode GZA 6,2 Y	Z-Diode GZA 6.2 Y	D 12	A 3
13 955 00	LED rot	LED rot	D 202	A 6
45 393 00	Drossel 330 µH	Choke coil 330 µH	L 1	A 3
21 797 00	Keramik Filter SFU 455 B	Ceramic filter SFU 455 B	CF-3	A 5
24 372 00	Spule AM	Coil AM	L 6	A 6
34 321 00	Spule AM	Coil AM	T 2	A 4
34 322 00	Spule AM	Coil AM	T 3	A 4
34 324 00	Spule Netzleitung	Line filter coil	L 301-2	A 1
12 110 00	Keramik Filter 10,7 MHz	Ceramic filter 10.7 MHz	CF 1, 2	A 6
45 394 00	**Tunerplatine**	**Tuner P.C.B.**		**F 9**
45 395 00	**Klangreglerplatine**	**Tone P.C.B.**		**D 2**
45 396 00	**AM/FM-Programmplatine**	**AM/FM-program P.C.B.**		**B 9**
45 397 00	**Platine Quellenschalter**	**Pre amp. P.C.B.**		**E 1**
45 398 00	**Netzschalterplatine**	**Power switch P.C.B.**		**B 9**
45 399 00	**Endstufenplatine**	**Audio P.C.B.**		**D 9**
41 289 00	Faltkarton	Carton		B 6
41 292 00	Styropor	Poly foam		B 2
45 400 00	Polster geritzt 340 × 160 × 40	Pad carton		A 7

Explosionsdarstellung 6000 SR
Exploded view 6000 SR



Schaltbild 6100 DC
Circuit diagram 6100 DC

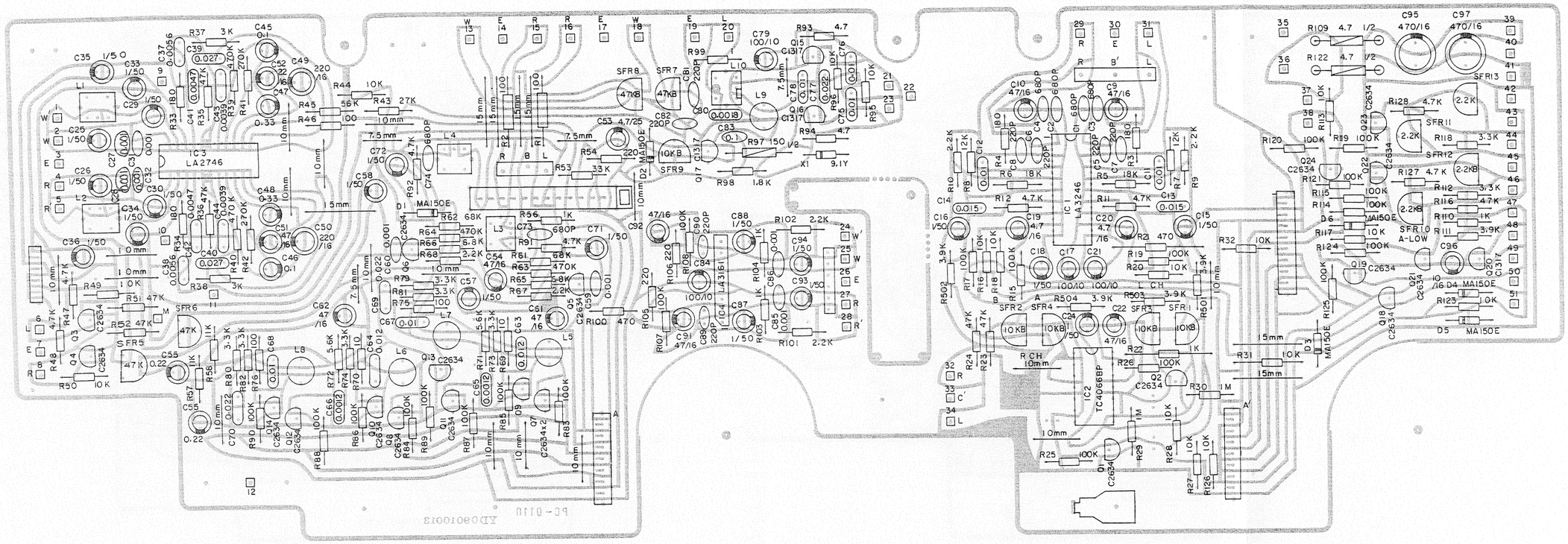


	Q1	Q2	Q5	Q6	Q7	Q8	Q9	Q10	Q12	Q14	Q15	Q16	Q17	Q18	Q19	Q20	Q21	Q22	Q23	Q24
B	0.6	0	0.7	0.7	0.65	0.65	0.65	0.65	0	1	0.75	0.4	8	0	0.65	0.6	0.1	1.5	1.5	0
C	0	12	8.2	8.2	0	0	0	0	0.5	0.5	7	7.2	12	8	0.24	0	0.8	0.18	0.18	9
E	0	0	0.7	0.7	0	0	0	0	0	0.5	0.35	0.35	8	0.24	0	0	0	0.18	0.18	0

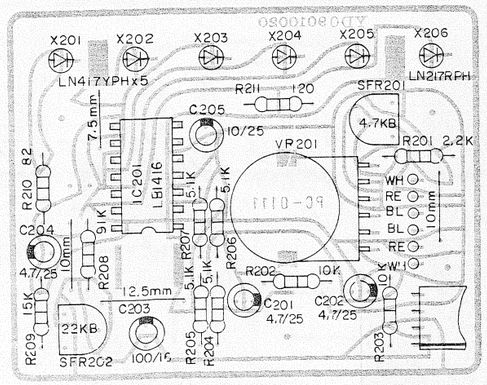
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
IC 1	0	0	1	3.4	3	0.04	0	3.4	0.03	0	11.5	0	0	0	0	3	3.4	1	0	0				
IC 2	0	0	0	0	0	0	0	0	0	0	0	7.4	7.4	12										
IC 3	4.1	4.6	5.4	5	2.4	0	5.1	5	4.6	0	11.6	0	5.2	11.6	0	4.6	5	5.1	0	2.4	5	5.4	4.6	4.1
IC 4	0.75	0.75	3	8.4	0	3	0.75	0.75																
IC 201								12																

Platinendarstellungen 6100 DC
P.C.B. diagrams 6100 DC
Bestückungsseite/Top view

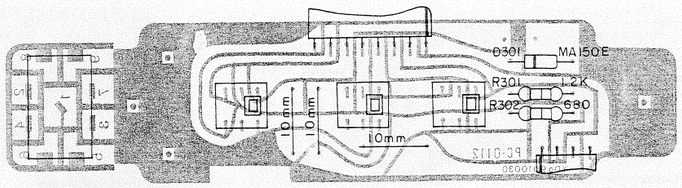
Grundplatine
Main P.C.B.



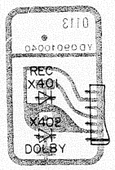
Aussteuerungsregler-Platine
Record level P.C.B.



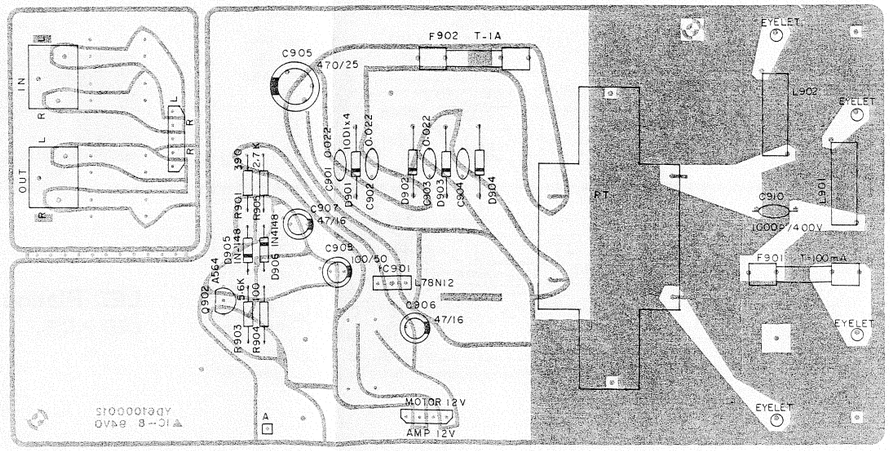
Schalterplatine
Switch P.C.B.



LED-Platine
LED P.C.B.

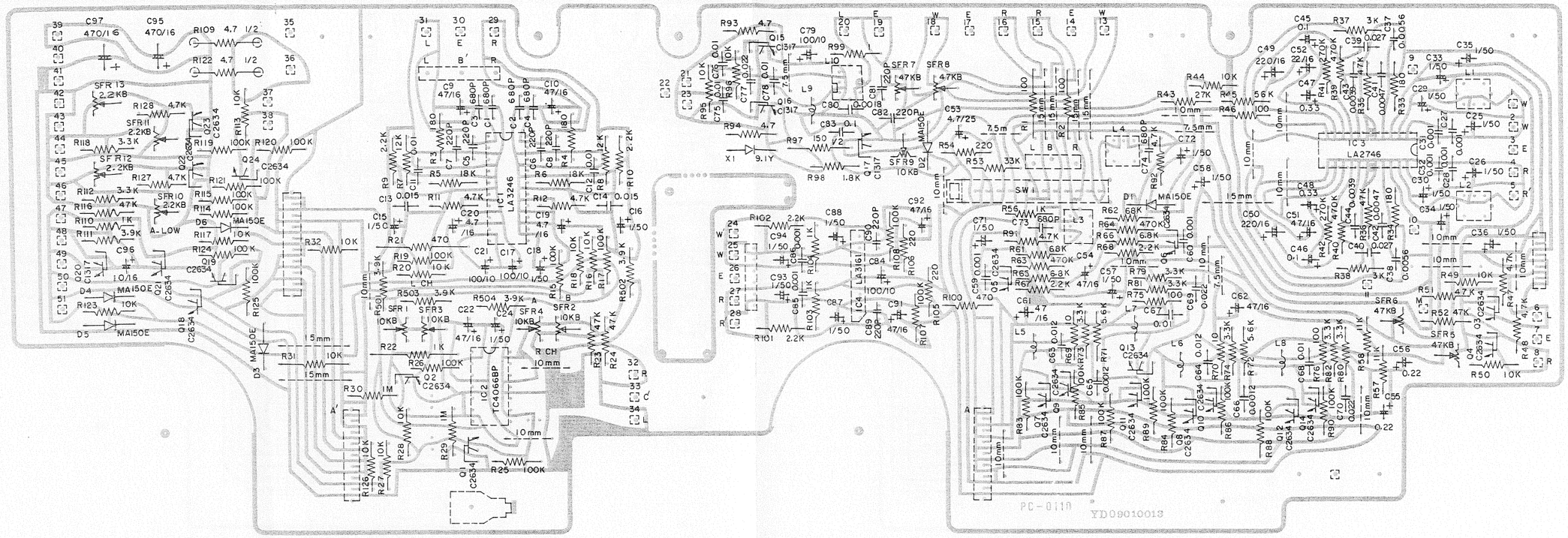


Netzteilplatine
Power supply P.C.B.

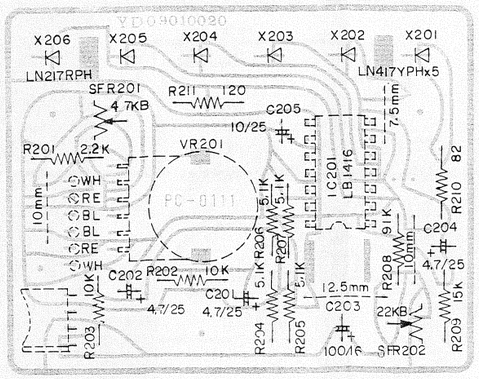


Platinendarstellungen 6100 DC
P.C.B. diagrams 6100 DC
Leiterbahnseite/Bottom view

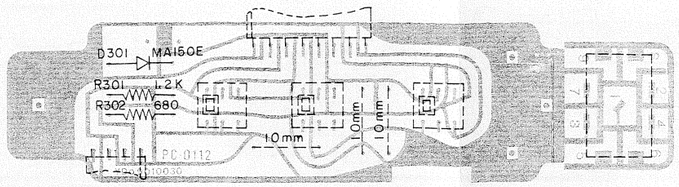
Grundplatine
Main P.C.B.



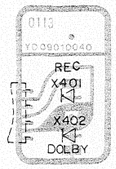
Aussteuerungsregler-Platine
Record level P.C.B.



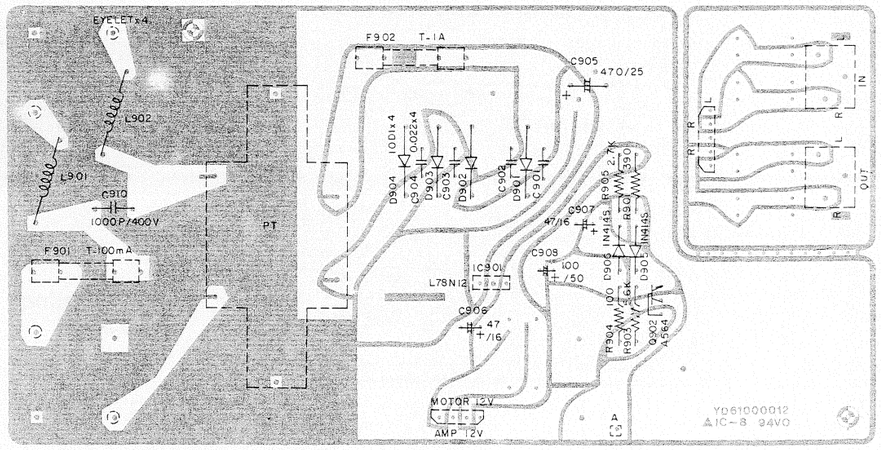
Schalterplatine
Switch P.C.B.



LED-Platine
LED P.C.B.



Netzteilplatine
Power supply P.C.B.



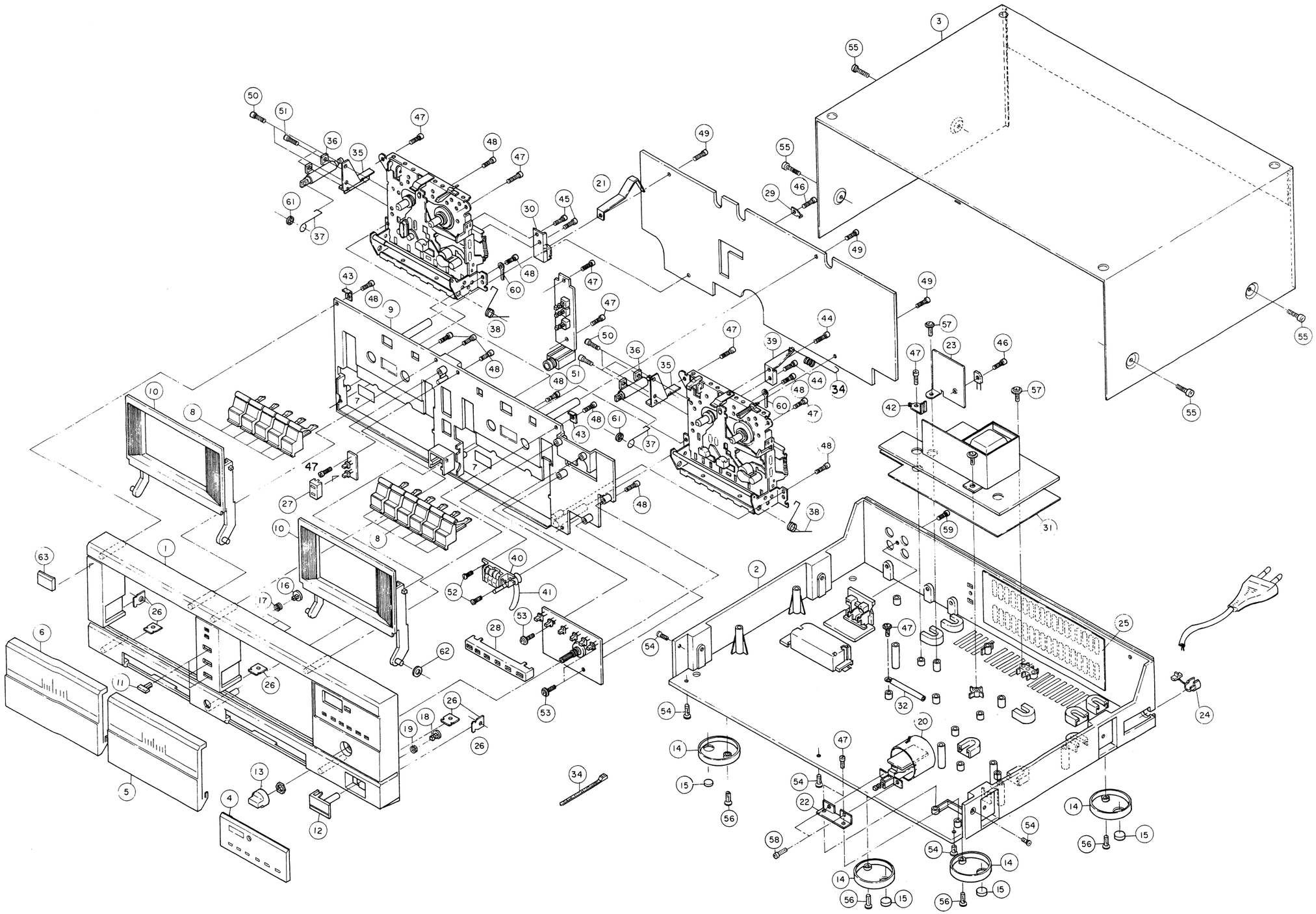
Abgleichanweisung 6100 DC
Alignment procedure 6100 DC

STEP	INPUT SOURCE		TEST TAPE	OUTPUT INDICATOR	ADJUSTOR	ADJUSTOR	NOTE
	GENERTOR						
	CONNECTION	FREQUENCY		CONNECTION			
HEAD AZIMUTH							
1.			MTT-114N	V.T.V.M.	AZIMUTH	MAX	TAPE A &
				LINE IUTPUT	SCREW		TAPE B
TAPE SPEED							
2.	PLAY BACK		MTT-111N	V.T.V.M.	SFR-10	3000Hz	TAPE A
		3000Hz		LINE OUTPUT	SFR-11		TAPE B
	PLAY BACK		MTT-111N	V.T.V.M.	SFR-12	4800Hz	TAPE A
		3000Hz		LINE OUTPUT	SFR-13		TAPE B
DOLBY LEVEL							
3.	PLAY BACK		MTT-150	V.T.V.M.	SFR-3/4	580mV	TAPE A
	•	400Hz		DOLBY IC 4.21PIN	SFR-1/2		TAPE B
TAPE OSC COIL FREQUENCY							
4.	RECORD						
				E HEAD	L-10	125KHz	
TRAP COIL							
5.	RECORD			V.T.V.M.	L-3	MIN	
				R-91/R-92	L-4		
HEAD BIAS LEVEL							
6.	RECORD			V.T.V.M.	SFR-9	55mV	NOR
				R/P HEAD	SFR-7/8	76mV	CRO2
DOLBY TRAP COIL							
7.	RECORD			V.T.V.M.	L-1	MIN	
				DOLBY IC-4.21PIN	L-2		
LEVEL METER							
8.	RECORD			V.T.V.M.		4RCS	
	LINE IN	1K 400mV		DOLBY IC4.21	SFR-202	LAMP ON	
RECORDING SESITIVITY							
9.	RECORD			V.T.V.M.	SFR-5	5.0mV	NOR
	LINE IN	1K 400mV		R/P HEAD	SFR-6	8.2mV	CRO2

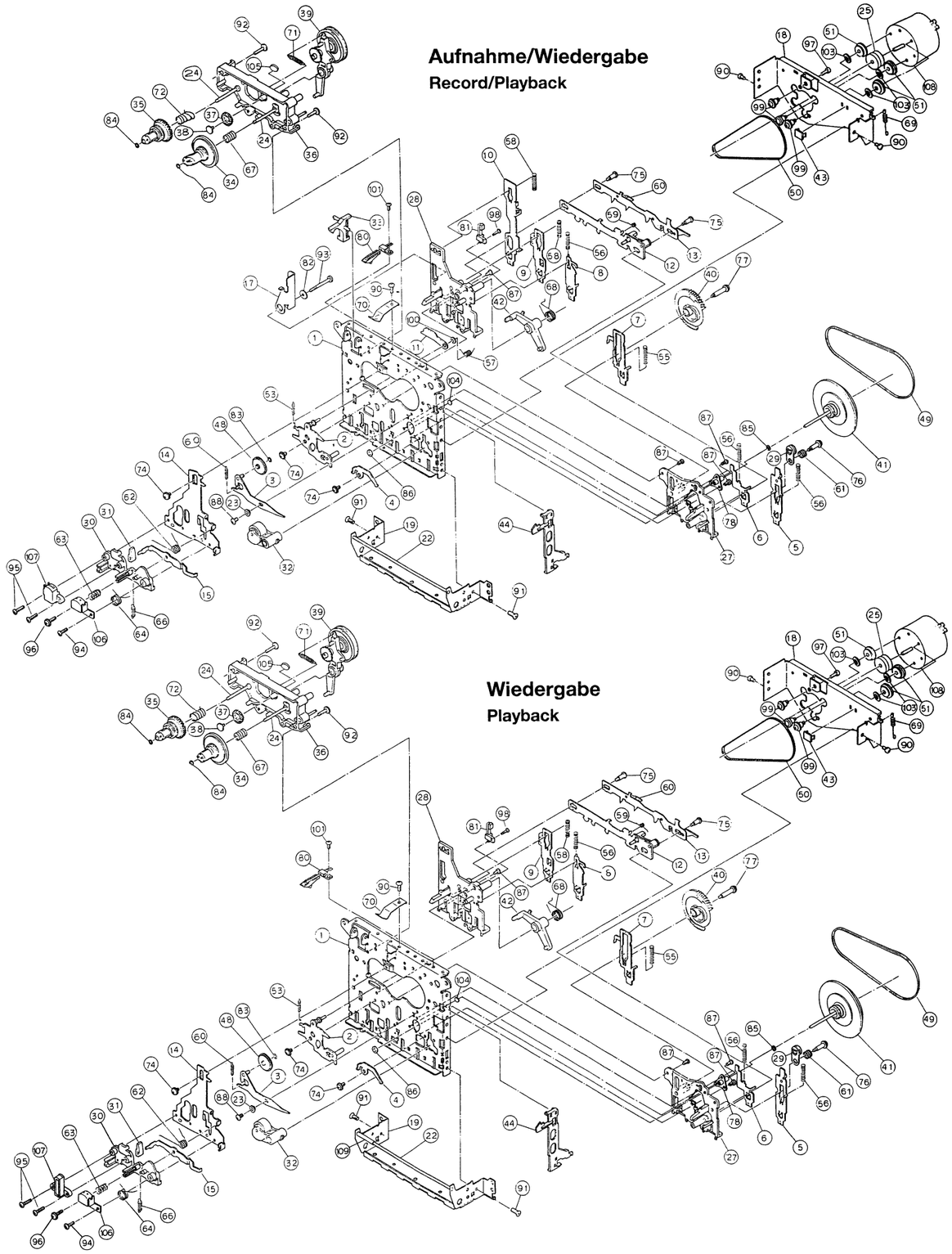
Ersatzteilliste 6100 DC
Spare parts list 6100 DC

Bestell-Nr./Part. No.	Bezeichnung	Description	Position	Preisgruppe/ Price group
45 426 00	Frontblende	Front panel	1	C 3
45 406 00	Gehäuseunterteil	Bottom chassis	2	C 7
45 427 00	Gehäusedeckel	Metal cabinet	3	D 7
18 251 00	Blende »Record Level«	LED window	4	B 4
18 254 00	Cass.-Abdeckung Tape A	Cass. window Tape A	5	B 5
18 257 00	Cass.-Abdeckung Tape B	Cass. window Tape B	6	B 5
45 276 00	Taste Cassette	Cass. key	8	A 3
34 035 00	Cassettenfach	Cass. case	10	A 7
31 863 00	Taste 12 × 3	Knob 12 × 3	11	A 1
18 220 00	Tastenknopf Power	Knob power	12	A 4
18 141 00	Drehknopf 19 mm	Knob 19 mm	13	A 5
18 143 00	Gehäusefuß	Feet	15 + 16	A 3
23 925 00	Stöpsel Taste	Knob spacer	18	A 1
31 126 00	Feder Netztaste	Spring power knob	19	A 0
34 040 00	Feder AW-Schalter	Cass. record spring	34	A 1
29 003 00	Dämpfer	Damper	36	A 5
34 041 00	Feder Fachdämpfung	Damper hook	37	A 1
34 042 00	Feder Cassettenfach Eject	Cass. eject spring	38	A 1
34 038 00	Zählwerk	Tape counter	40	B 3
34 039 00	Zählwerkriemen	Counter belt	41	A 2
41 107 00	Schriftzug Schneider	Badge Schneider	63	A 5
24 533 00	Transistor 2 SC 2634 S	Transistor 2 SC 2634 S	...	A 3
08 012 00	Transistor 2 SC 1317 R	Transistor 2 SC 1317 R	...	A 5
12 036 00	Transistor 2 SA 564 Q	Transistor 2 SA 564 Q	Q 902	A 8
32 997 00	IC LA 3161	IC LA 3161	IC 4	B 0
32 998 00	IC TC 4066 BP	IC TC 4066 BP	IC 2	B 0
37 730 00	IC LA 2746	IC LA 2746	IC 3	C 3
40 799 00	IC LA 3246	IC LA 3246	IC 1	B 2
13 558 00	IC LB 1416	IC LB 1416	IC 201	B 5
29 232 00	IC L 78 N 12	IC L 78 N 12	IC 901	B 3
11 241 00	Diode 1 N 4148	Diode 1 N 4148	...	A 2
12 039 00	Diode 10 D 1	Diode 10 D 1	D 901-4	A 4
23 214 00	Z-Diode GZA 9.1 Y	Z-Diode GZA 9.1 Y	X 1	A 1
13 954 00	Leuchtdiode gelb	LED yellow	...	A 6
14 301 00	Leuchtdiode grün	LED green	X 402	A 6
13 955 00	Leuchtdiode rot	LED red	X 206, 401	A 6
34 030 00	Löschoszillatorspule	Bias osc. coil	L 10	A 7
34 031 00	Oszillatorspule	Bias trap coil	L 1-4	A 7
37 782 00	Spule 6,8 mH	Choke coil 6.8 mH	L 5-6	A 4
37 783 00	Spule 3,9 mH	Choke coil 3.9 mH	L 7-8	A 4
37 784 00	Spule 100 µH	Choke coil 100 µH	L 9	A 4
34 324 00	Spule Netz	Line filter coil	L 901-2	A 1
45 428 00	Netztrafo	Power transformer	Netz	C 3
34 033 00	A/W-Schalter	R/P switch	SW 1	A 8
29 747 00	Tastschalter	Push switch	401-3	B 1
40 006 00	Netzschalter	Power switch	Netz	B 0
34 032 00	Drehwiderstand Aussteuerung	Rotary resistor	VR 201	B 1
31 129 00	Sicherungs-W 4,7 ½ W	Fuse resistor 4.7 ½ W	R 109, 122	A 2
45 389 00	Chinchbuchse 4 Pin	RCA jack 4-pin		B 2
34 034 00	Mikrofonbuchse	Jack microphone	Mic	B 3
27 621 00	**FLS 902 Cassettenteil komplett**	**FLS 902 cassette deck assembly**		**G 2**
45 275 00	**Grundplatine**	**Main P.C.B.**		**E 9**
37 728 00	**Schalterplatine**	**Switch P.C.B.**		**C 9**
37 727 00	**Aussteuerungsreglerplatine**	**Meter P.C.B.**		**C 7**
45 429 00	**Netzplatine**	**Power supply P.C.B.**		**D 1**
41 289 00	Faltkarton	Carton		B 6
41 292 00	Styropor	Poly foam		B 2
45 400 00	Polster geritzt 340 × 160 × 40	Pad carton		A 7

Explosionsdarstellung 6100 DC
Exploded view 6100 DC



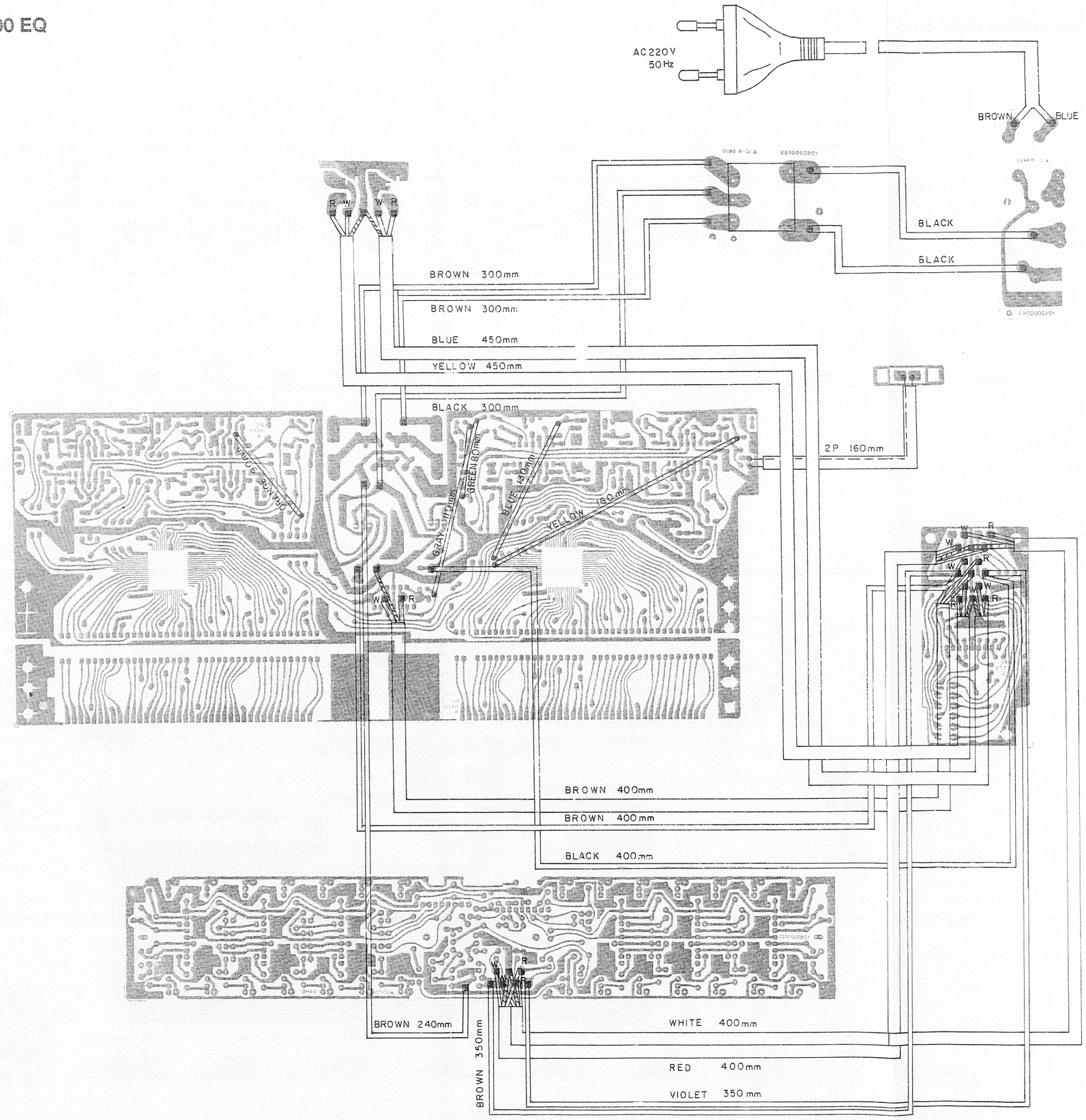
Explosionsdarstellung Mechanik 6100 DC
Exploded view mechanism 6100 DC



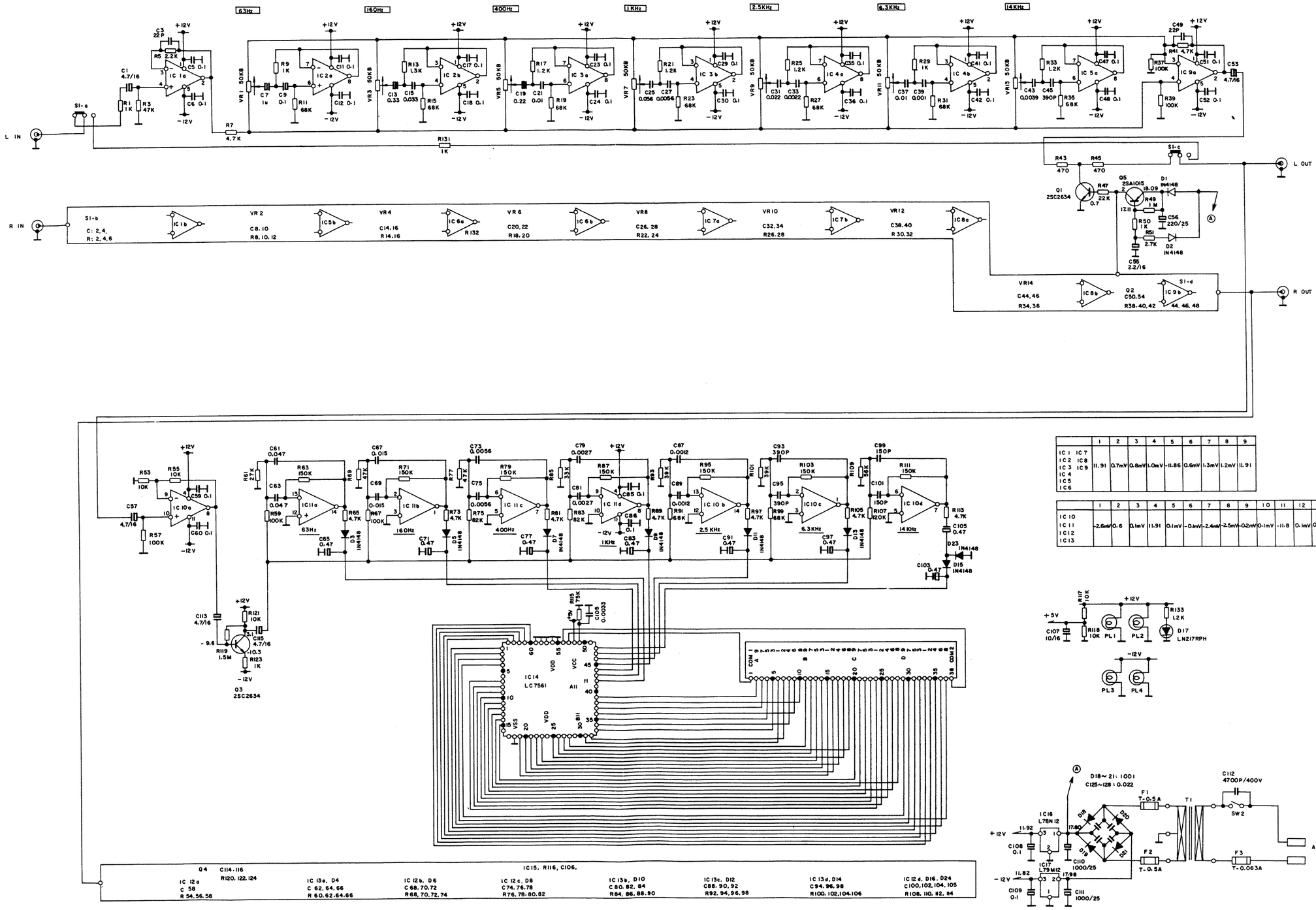
Ersatzteilliste Mechanik 6100 DC
Spare parts list mechanism 6100 DC

Bestell-Nr./Part. No.	Bezeichnung	Description	Position	Preisgruppe/ Price group
34 059 00	**Cassettenmechanik kpl. Aufn./Wiederg.**	**Cassette mechanism Rec./PB**	LBNC 59 FB	E 1
34 060 00	**Cassettenmechanik kpl. Wiedergabe**	**Cassette mechanism playback**	LBNC 58 FB	E 0
26 841 00	Schalthebel	Shift arm	2	A 9
24 403 00	Zwischenradarm	Idler arm	3	A 4
24 404 00	Schalthebel Pause	Pause arm	4	A 3
34 043 00	Schalthebel Pause	Pause lever	5	A 3
34 044 00	Schalthebel Stop	Stop lever	6	A 2
34 045 00	Schalthebel Vorlauf	Forward lever	7	A 1
34 046 00	Schalthebel Rücklauf	Rewind lever	8	A 1
34 047 00	Schalthebel Play	Play lever	9	A 1
34 048 00	Schalthebel Record	Record lever	10	A 1
29 826 00	Auslöserasthebel (A)	Lock cam A	12	B 1
29 827 00	Auslöserasthebel (B)	Lock cam B	13	B 1
24 190 00	Abschalthebel	Auto stop arm	15	A 4
34 049 00	Motorpulley	Motor pulley	25	A 3
24 405 00	Pauserasthebel	Pause cam	29	A 1
24 406 00	Kopfträgerplatte	Head base	30	A 2
24 407 00	Stoppfühler	Sensor cap	31	A 1
26 724 00	Bandandruckrolle	Pinch roller arm	32	A 9
24 409 00	Aufnahmesperrhebel	Record sensor	33	A 2
24 410 00	Wickelteller rechts	Take up reel	34	A 8
24 411 00	Wickelteller links	Supply reel	35	A 5
24 413 00	Zahnrad Vorlauf	Forward gear	37	A 1
24 414 00	Nietbolzen Zahnrad Vorlauf	Bush forward gear	38	A 1
24 412 00	Rutschkupplung	Clutch arm	39	B 2
26 845 00	Zahnrad Start/Stop	Gear start/stop	40	A 3
34 050 00	Schwungmasse	Flywheel	41	B 3
26 728 00	Rasthebel	Lock arm	42	A 2
26 847 00	Schwungmasselager	Capstan spacer	43	B 5
24 420 00	Hebel Eject	Eject lever	44	A 2
24 423 00	Zwischenrad	Play idler	48	A 4
24 422 00	Antriebriemen B	Drive belt B	49	A 7
24 421 00	Antriebriemen A	Drive belt A	50	A 6
24 424 00	Gummipuffer Motor	Motor cushion	51	A 0
26 849 00	Feder Schalthebel	Spring shift arm	53	A 0
34 051 00	Feder Schalthebel Vorlauf	Spring forward lever	55	A 1
34 052 00	Feder Schalthebel Rewind	Spring rewind lever	56	A 1
24 427 00	Feder Schalthebel Record	Spring record lever	57	A 0
34 053 00	Feder Schalthebel Record	Spring record lever	58	A 1
26 851 00	Feder Auslöserasthebel A	Spring lock cam	59	A 0
26 852 00	Feder Auslöserasthebel B	Spring lock cam	60	A 1
26 853 00	Feder Pauserasthebel	Spring pause cam	61	A 1
24 428 00	Feder Kopfschlitten	Spring head chassis	62	A 1
24 429 00	Feder A/W-Kopf	Spring rec./playback head	63	A 0
26 854 00	Feder BA-Rolle	Spring pinch roller	64	A 1
24 432 00	Zugfeder Kopfschlitten	Spring head chassis return	66	A 0
45 277 00	Feder Wickelteller rechts	Spring take up reel	67	A 1
26 732 00	Feder Rasthebel	Spring lock arm	68	A 1
26 733 00	Feder Hebel Eject	Spring eject lever	69	A 0
24 436 00	Cassettenandruckfeder	Spring pack	70	A 1
34 054 00	Feder Rutschkupplung	Spring clutch arm	71	A 1
34 055 00	Feder Wickelteller links	Spring supply reel	72	A 1
29 703 00	Schaltkontakt Bandsorte	Leaf switch tape select	80 SW 2, 3	A 6
24 440 00	Schaltkontakt Motor	Leaf switch motor	81	A 4
26 734 00	Schaltkontakt play Tape 1	Leaf switch play tape 1	112	A 6
24 441 00	Scheibe Wickelteller	Washer reel	84	A 0
37 778 00	A/W-Kopf	Rec./PB head	106	C 2
37 779 00	Wiedergabekopf	Playback head	106	B 9
24 513 00	Löschkopf	Erase head	107	B 9
29 831 00	Bandführung	Tape guide	107	A 4
37 780 00	Motor	Motor	108	C 5

Verdra htungsplan 6200 EQ
Wiring diagram 6200 EQ



Schaltbild 6200 EQ
Circuit diagram 6200 EQ



	1	2	3	4	5	6	7	8	9
IC 1 IC 7 IC 2 IC 8 IC 3 IC 9 IC 4 IC 5 IC 6	11.91	0.7mV	0.8mV	1.0mV	11.86	0.6mV	1.3mV	1.2mV	11.91

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
IC 10 IC 11 IC 12 IC 13	-2.6mV	0.6	0.1mV	11.91	0.1mV	-0.1mV	-2.4mV	-2.5mV	-0.2mV	0.1mV	-11.8	0.1mV	0.2mV	-2.0mV

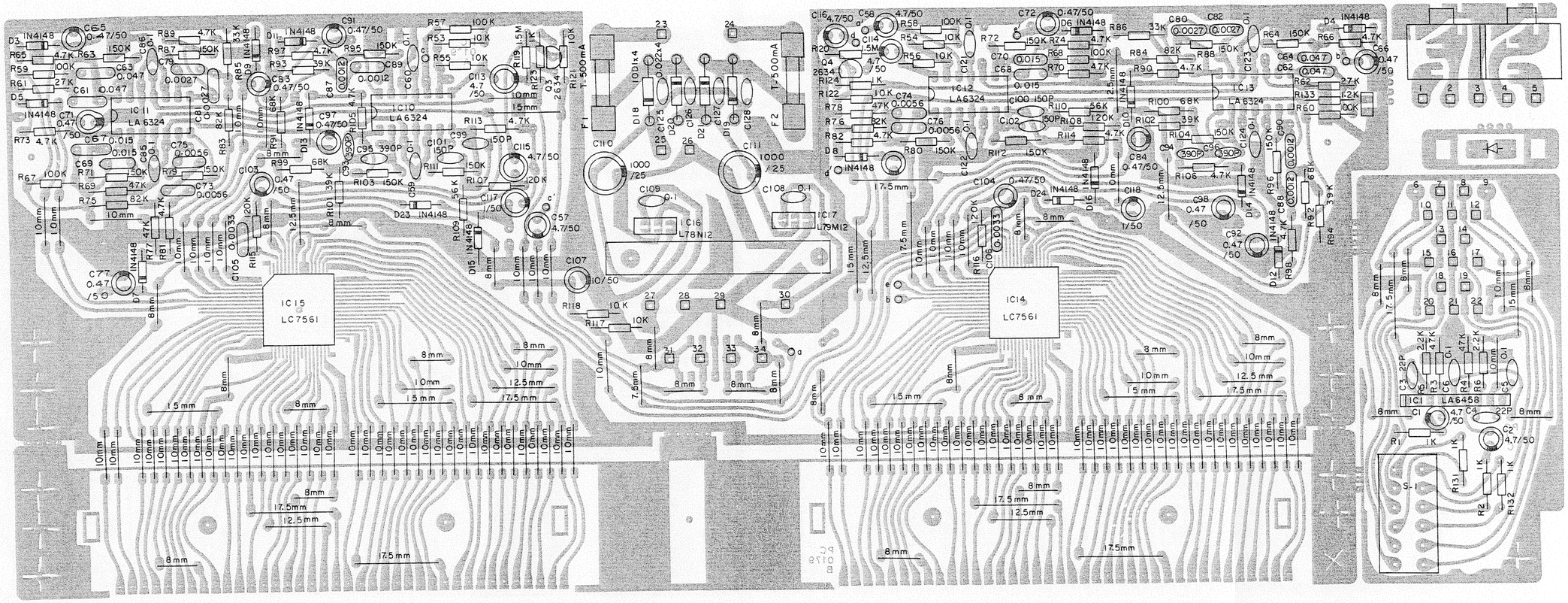
Platinendarstellungen 6200 EQ

P.C.B. diagrams 6200 EQ

Bestückungsseite/Top view

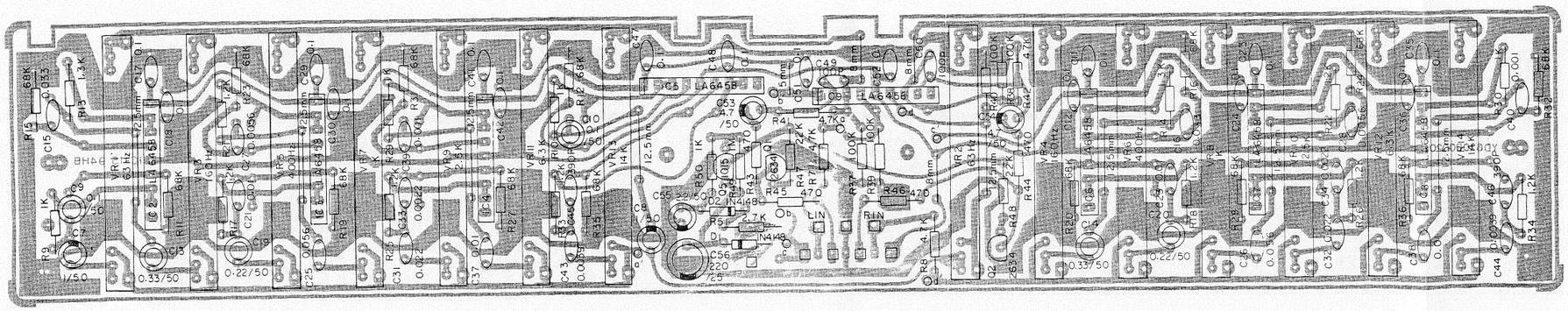
Anzeigesteuerung

Display drive P.C.B.



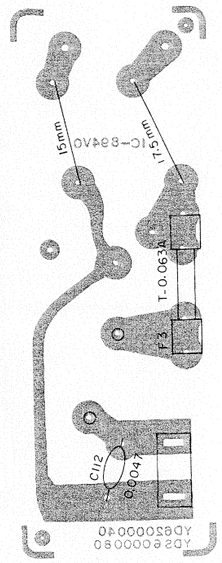
EQ-Regler-Platine

EQ resistor P.C.B.



Linear-Schalter-Platine

Linear switch P.C.B.



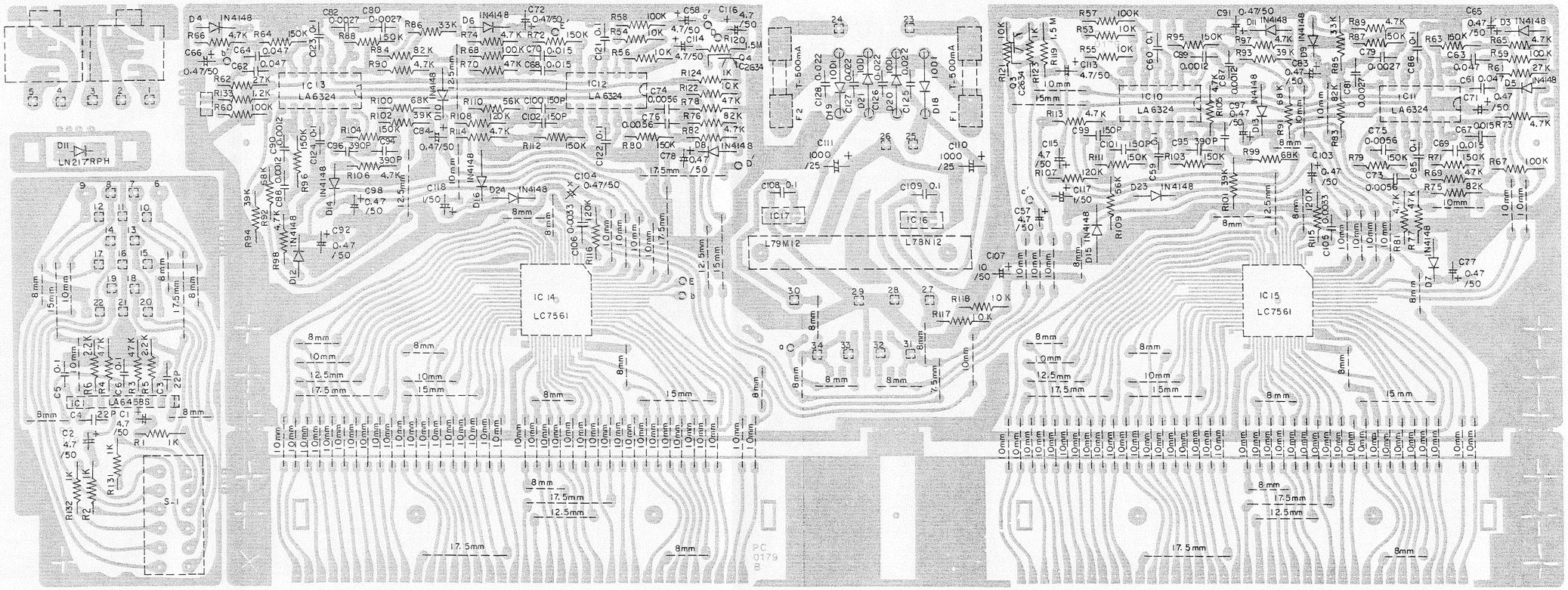
Platinendarstellungen 6200 EQ

P.C.B. diagrams 6200 EQ

Leiterbahnseite/Bottom view

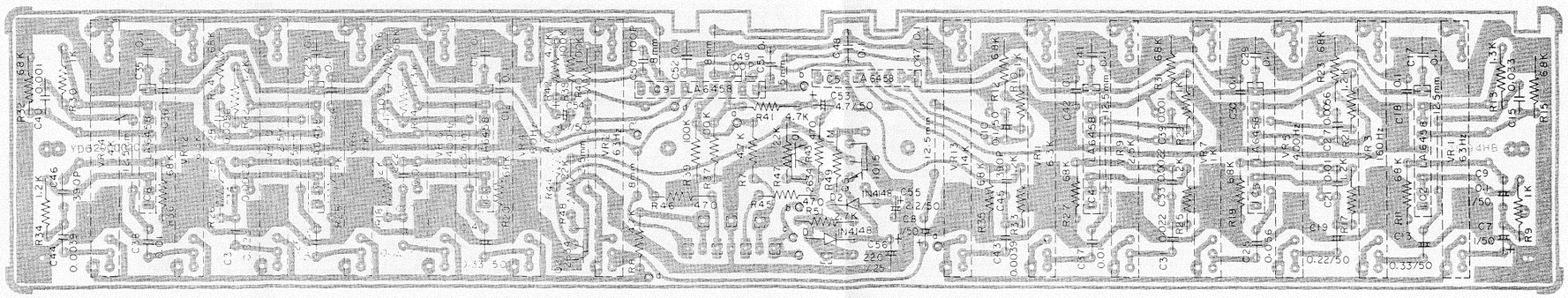
Anzeigesteuerung

Display drive P.C.B.



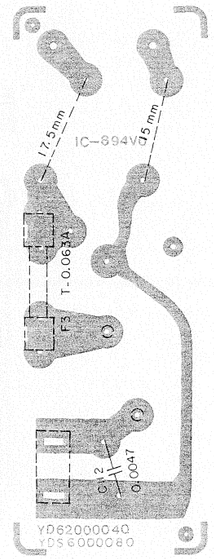
EQ-Regler-Platine

EQ resistor P.C.B.

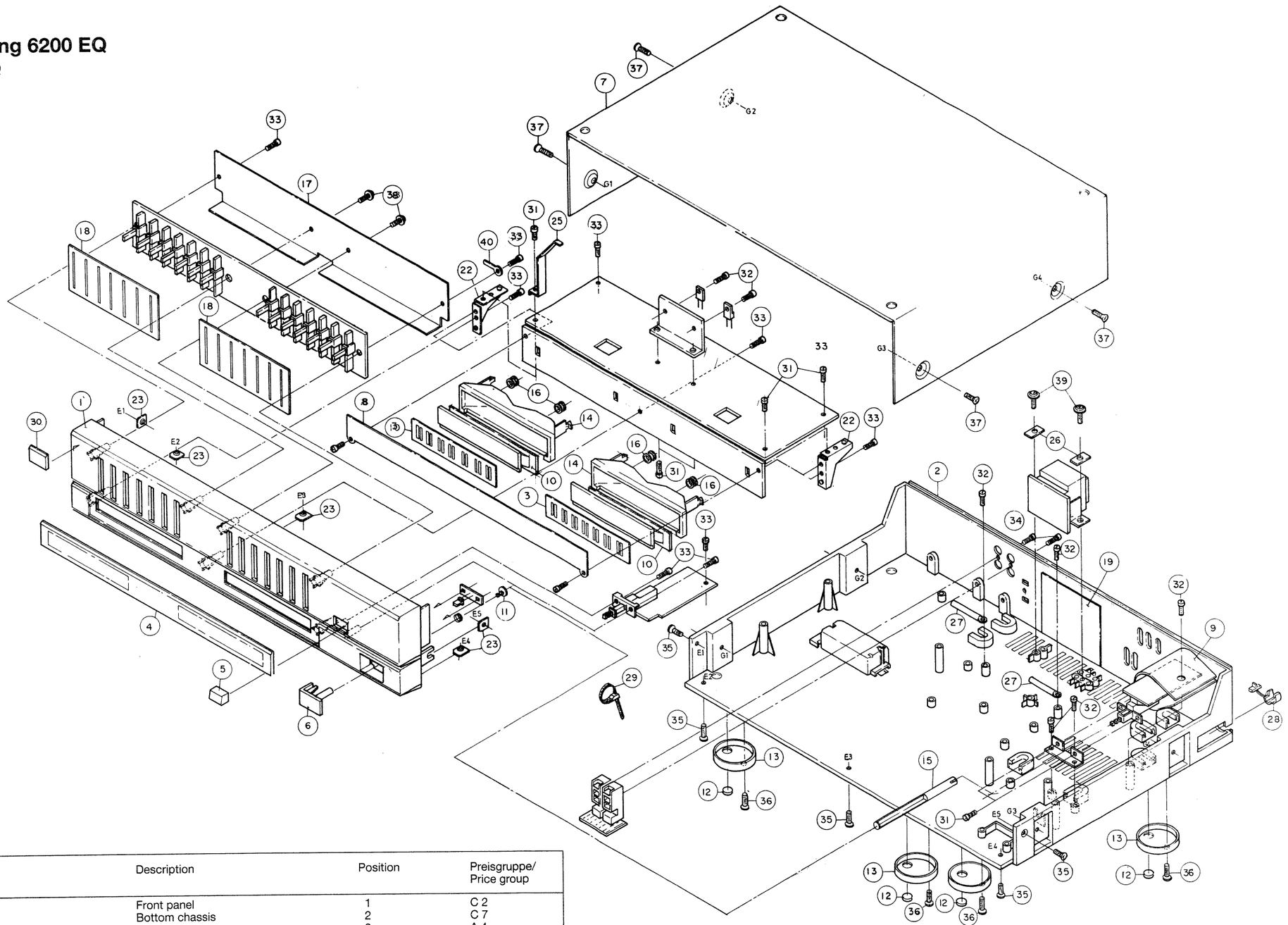


Linear-Schalter-Platine

Linear switch P.C.B.



Explosionsdarstellung 6200 EQ
Exploded view 6200 EQ



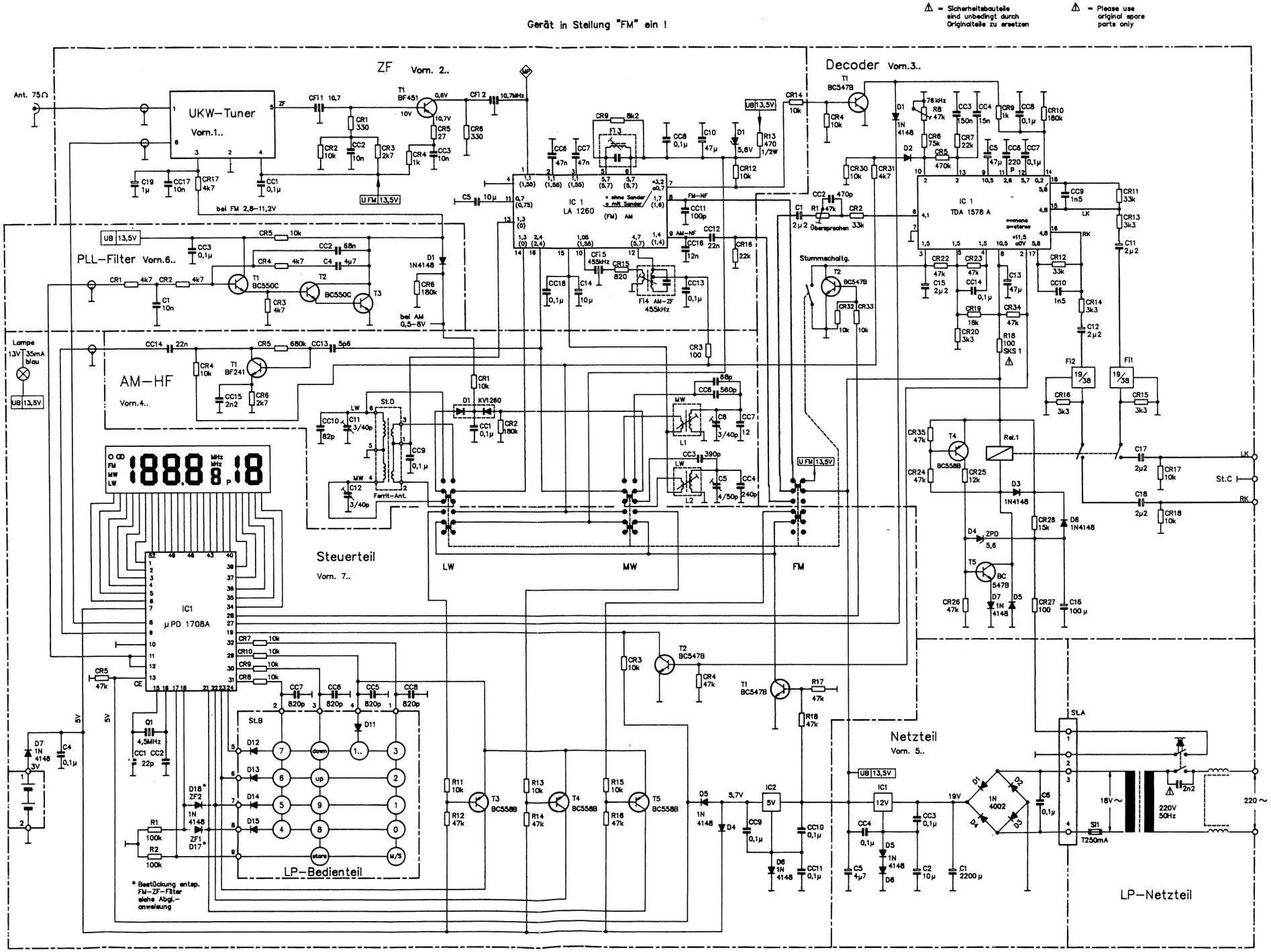
Ersatzteilliste 6200 EQ
Spare parts list 6200 EQ

Bestell-Nr./Part. No.	Bezeichnung	Description	Position	Preisgruppe/ Price group
45 405 00	Frontblende	Front panel	1	C 2
45 406 00	Gehäuseunterteil	Bottom chassis	2	C 7
45 407 00	Maskenschild	Masking sheet	3	A 4
45 408 00	Fenster LCD	LCD window	4	B 1
45 369 00	Taste Linear	Function button linear	5	A 2
18 220 00	Tastenknopf Power	Knob power	6	A 4
45 409 00	Gehäusedeckel	Metal cabinet	7	D 3
45 410 00	Plexiglas weiß, matt	Screen white	10	A 3
23 925 00	Stöpsel Taste	Knob spacer	11	A 1
18 143 00	Gehäusefuß	Feet	12 + 13	A 3
45 411 00	Reflektor Display	Reflector	14	B 1
45 412 00	Schaltstange Netzschalter	Power switch spacer	15	A 3
31 126 00	Feder Netztaste	Power knob spring	20	A 0
41 107 00	Schriftzug Schneider	Badge Schneider	30	A 5
24 389 00	IC LA 6324	IC LA 6324	IC 10-13	B 0
29 782 00	IC LA 6458 S	IC LA 6458 S	IC 1-9	B 0
45 416 00	IC LA 7561	IC LA 7561	IC 14-15	D 0
29 232 00	IC L 78 N 12	IC L 78 N 12	IC 16	B 3
45 417 00	IC L 79 M 12	IC L 79 M 12	IC 17	B 1
12 959 00	Trans 2 SA 1015 GR	Trans 2 SA 1015 GR	Q 5	A 6
24 533 00	Trans 2 SC 2634 S	Trans 2 SC 2634 S	Q 1-4	A 3
11 241 00	Diode 1 N 4148	Diode 1 N 4148	...	A 3
12 039 00	Diode 10 D 1	Diode 10 D 1	D 18-21	A 4
13 955 00	LED rot	LED rot	D 17	A 6
40 006 00	Netzschalter	Power switch	Netz	B 0
14 842 00	Druckschalter	Push switch	Linear	A 9
45 418 00	Schieberegler 50 K	Slide resistor 50 K	VR 1-14	B 1
45 419 00	Netztrafo	Power transformer	Netz	C 1
45 420 00	Chinchbuchse 2 Pin	Chinch-jack 2-pin		B 0
34 264 00	Lampe 12 V 50 mA	Lamp 12 V 50 mA	PL 1-4	A 6
45 421 00	Display LTPAE 7011 A	Display LTPAE 7011 A		D 4
45 413 00	**Anzeigesteuerungs-P.C.B.**	**Display P.C.B.**		**E 4**
45 414 00	**EQ-Regler Platine**	**EQ resistor P.C.B.**		**D 9**
45 415 00	**Platine Schalter Linear**	**Switch P.C.B. Linear**		**C 6**
41 288 00	Faltkarton	Carton		B 4
41 291 00	Styropor	Poly foam		B 6
45 400 00	Polster geritzt 340 × 160 × 40	Pad carton 340 × 160 × 40		A 7

Schaltbild 6100 ST
Circuit diagram 6100 ST

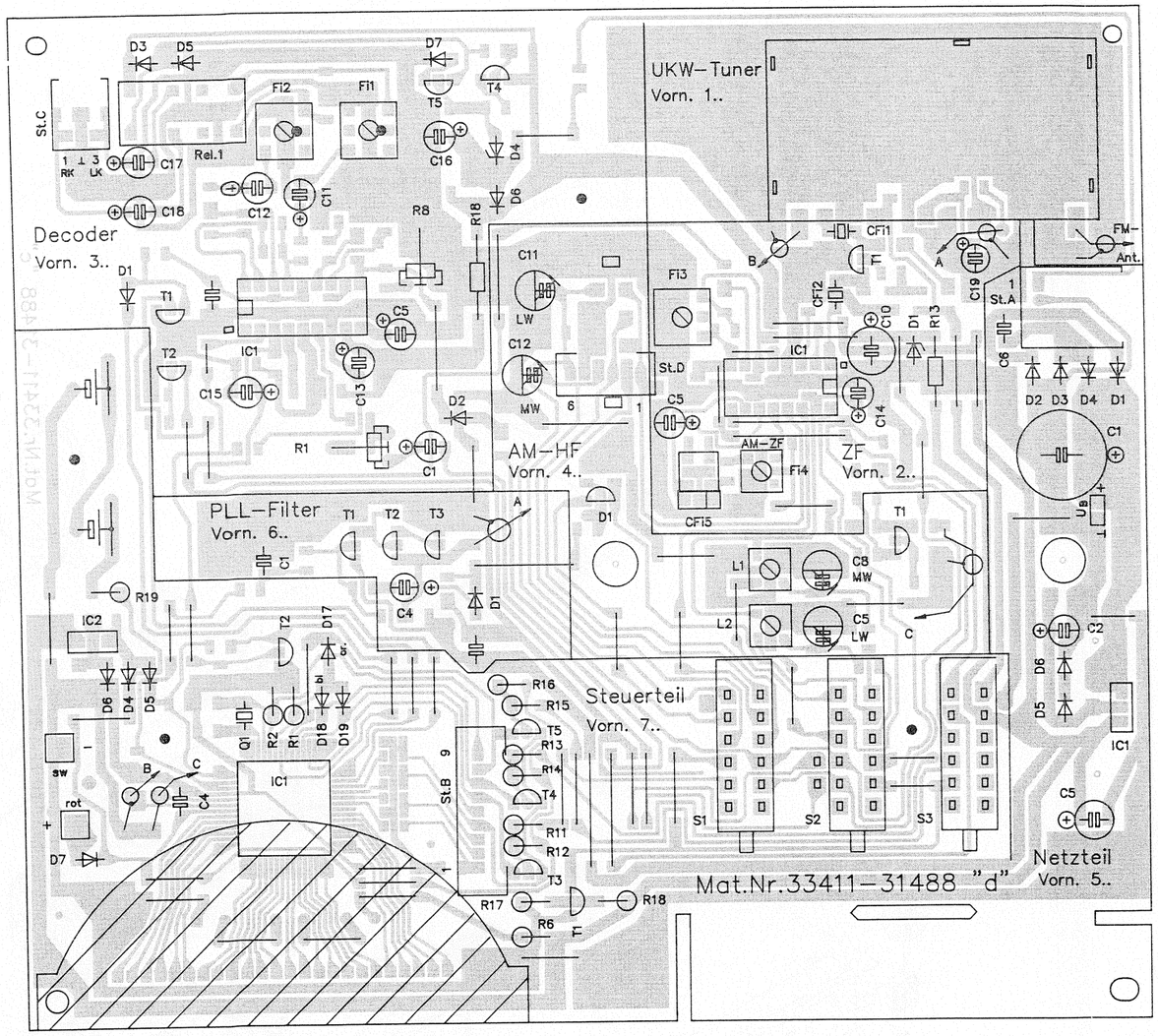
⚠ = Sicherheitsbauteile sind unbedingt durch Originalteile zu ersetzen

⚠ = Please use original spare parts only

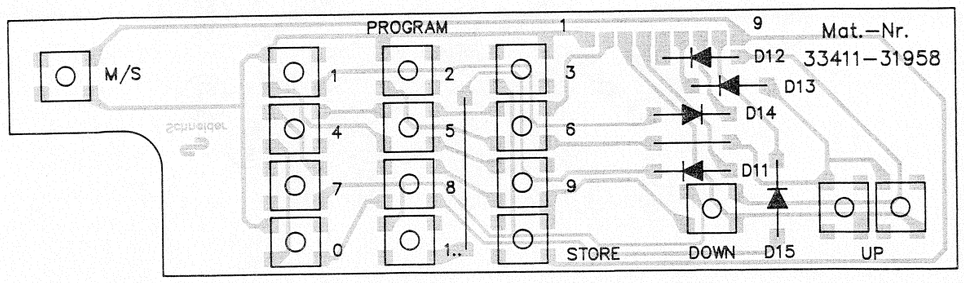


Platinendarstellungen 6100 ST
P.C.B. diagrams 6100 ST
Bestückungsseite/Top view

HF-Platine
RF P.C.B.



Bedienteilplatine
Control P.C.B.



Abgleichanweisung 6100 ST

a) FM-ZF-Abgleich
1. Wobbelgenerator an Antennenbuchse anschließen.
2. Sichtgerät über HF-Tastknopf an Pin 1 IC LA 1260 (ZF-IC) anschließen.
3. Prüfling auf 98 MHz einstellen.
4. Durchlaßkurve mit ZF-Filter (im Tuner) auf Symmetrie und Maximum abgleichen.
5. HF-Tastkopf abnehmen und NF-Tastkopf an Pin 8 IC 201 anschließen.
6. Mit Filter 203 S-Kurve auf Linearität einstellen.

b) Decoder-Abgleich
1. Pin 4 + 8 IC 301 über 10 kΩ miteinander verbinden.
2. Pin 8 IC 201 (ZF IC) über 100 nF mit Masse verbinden.
3. Frequenz-Zähler an Pin 4 (IC 301) anschließen.
4. Mit R 308 76 kHz ± 1 kHz einstellen. Meßaufbau rückgängig machen.

c) Stereo-Übersprechen
1. NF-Millivoltmeter an NF-Ausgang (Chinch-Buchsen). anschließen.
2. Stereo-Multiplex-Signal über Antenne einspeisen.
3. Mit R 301 Übersprechen auf Minimum einstellen

Abstimmspannung MW

Meßvorbereitung: Multimeter an Kathode von D 1 und Masse anschließen.
1. MW-Bereichstaste drücken.
2. Gerät auf 513 kHz einstellen.
3. L 401 0,5 Volt einstellen.
4. Gerät auf 1620 kHz einstellen.
5. Mit C 408 8 Volt einstellen.
6. Abgleich nochmals wiederholen.

Abstimmung LW

Meßvorbereitung: siehe oben
1. LW-Bereichstaste drücken.
2. Gerät auf 137 kHz einstellen.
3. Mit L 402 0,5 Volt einstellen.
4. Gerät auf 290 kHz einstellen.
5. Mit C 405 8 Volt einstellen.
6. Abgleich nochmals wiederholen.

Alignment instructions 6100 ST

a) FM IF alignment
1. A sweep generator is connected to the antenna jack.
2. An oscilloscope is connected through the radio-frequency probe to pin 1 of the IC, La 1260 (IF IC).
3. The receiver is set to 98 MHz.
4. The band-pass characteristic is aligned for symmetry and maximum with the IF filter (in the tuner).
5. The RF probe is disconnected, and the audio-frequency probe is connected to pin 8 of IC 201.
6. The S-curve is aligned for linearity with the use of filter 203.

b) Decoder alignment
1. Pins 4 and 8 of IC 301 are mutally linked through 10 kΩ.
2. Pin 8 of IC 201 (IF IC) is connected to chassis earth through 100 nF.
3. A frequenzy counter is connected to pin 4 of IC 301.
4. A frequency of 76 kHz ± 1 kHz is set by means of R 308. The measuring set-up is then removed.

c) Stereo cross-talk
1. An audio-frequency millivoltmeter is connected to AF-output (chinch jacks).
2. A stereo multiplex signal is supplied through the antenna jack.
3. With the use of R 301, the cross-talk is set to a minimum.

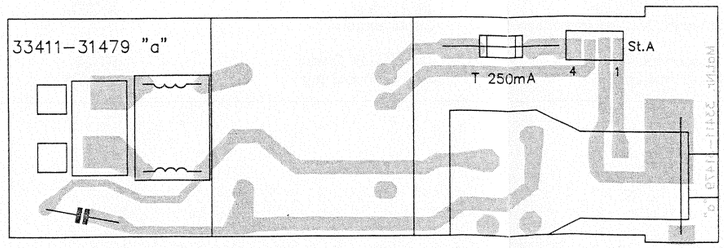
Tuning voltage MW

Measuring set up: Milivoltmeter is connected to cathode of D 1 and to chassis earth.
1. Push MW-mode button.
2. The tuner is set to 513 kHz.
3. A potential of 0,5 Volt is set with the use of L 401.
4. The tuner is set to 1620 kHz.
5. A potential of 8 Volt is set with the use of C 408.
6. Repeat the same procedure.

Tuning voltage LW

Measuring set-ups see above
1. Push LW-mode button.
2. The tuner is set to 137 kHz.
3. A potential of 0,5 Volt is set with the use of L 402.
4. The tuner is set to 290 kHz.
5. A potential of 8 Volt is set with the use of C 405.
6. Repeat the same procedure.

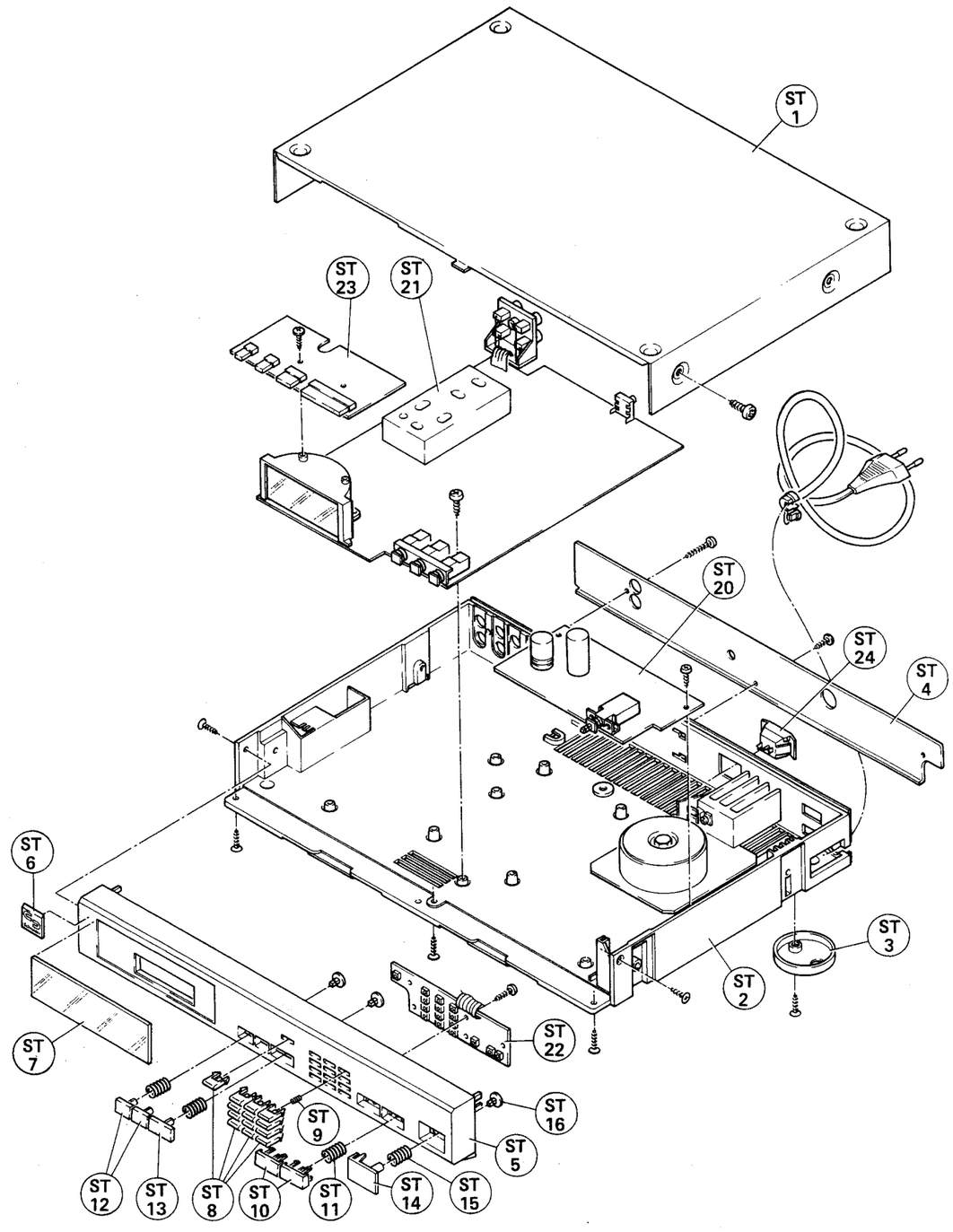
Netzteil
Power supply



Ersatzteilliste 6100 ST
Spare parts list 6100 ST

Bestell-Nr./Part. No.	Bezeichnung	Description	Position	Preisgruppe/ Price group
31 466 00	Deckel	Cabinet	ST 1	C 3
31 465 00	Gehäuse-Unterteil	Bottom chassis	ST 2	B 9
18 143 00	Gehäusefuß	Feet	ST 3	A 3
41 108 00	Frontteil	Front panel	ST 5	C 9
41 107 00	Schriftzug Schneider	Badge Schneider	ST 6	A 5
18 162 00	Anzeigeblende 6100 ST	Window	ST 7	B 5
31 863 00	Tastenknopf 12 × 3	Knob 12 × 3	ST 8	A 1
31 864 00	Druckfeder	Spring	ST 9	A 0
18 164 00	Tipp-Tastenknopf Tuning	Knob Tuning	ST 10	A 7
31 641 00	Druckfeder	Spring	ST 11	A 0
18 166 00	Tastenknopf LW, MW 16,5 × 10,5	Knob LW, MW	ST 12	A 5
18 167 00	Tastenknopf FM 24 × 10,5	Knob FM	ST 13	A 4
18 220 00	Tastenknopf Power on/off	Knob Power on/off	ST 14	A 4
31 126 00	Druckfeder Tipptaste	Spring	ST 15	A 0
23 925 00	Stöpsel-Taste	Knob spacer	ST 16	A 1
31 491 00	Batteriehalter	Holder battery	ST 17	A 3
20 891 00	**Netzteil Tuner**	**Power supply**	**ST 20**	**D 1**
31 492 00	Trafo EI 38	Transformer EI 38		C 1
15 407 00	Netzschalter	Power switch		B 2
39 003 00	**HF-LP Chip kpl. in Conc. 6100 ST**	**RF P.C.B.**	**ST 21**	**G 1**
23 964 00	Transistor BC 547 B	Transistor BC 547 B	701-2	A 4
23 965 00	Transistor BC 558 B	Transistor BC 558 B	703-5	A 4
31 309 00	Transistor BF 451	Transistor BF 451		A 3
31 318 00	Transistor BC 550	Transistor BC 550	601-3	A 1
31 810 00	Transistor BF 241	Transistor BF 241	T 401	A 2
23 951 00	Diode 1 N 4148	Diode 1 N 4148	302-7	A 2
31 463 00	Diode 1 N 4148	Diode 1 N 4148	704-7	A 1
23 952 00	Diode 1 N 4002	Diode 1 N 4002	501-4	A 1
31 313 00	Diode KV 1260	Diode KV 1260	D 401	B 1
31 317 00	Zenerdiode ZPD 5,6	Zenerdiode ZPD 5.6	01/04	A 1
03 847 00	IC LM 340 T 12 STABI 12 V	IC LM 340 T 12 STABI 12 V	IC 501	B 1
15 107 00	IC TDA 1578 A Stereo-Decoder	IC TDA 1578 A Stereo-Decoder	IC 301	C 1
23 701 00	IC 7805 1,5 A 5 V STABI	IC 7805 1.5 A 5 V STABI	IC 702	B 1
31 308 00	IC LA 1260 ZF	IC LA 1260 ZF	IC 201	B 0
31 481 00	IC UPD 1708 A	IC UPD 1708 A	IC 701	D 2
31 482 00	Quarz 4,5 MHz	Resonator 4.5 MHz	Q 701	A 8
23 293 00	Trimmer-Kondensater Folie 3/40	Trimmer condensator 3-40	11/12	A 3
31 807 00	Trimmer-Kondensater Folie 3/50	Trimmer condensator 3-50	C 405	A 3
01 255 00	Trimmpoti 50 K/47 K lieg.	Trimmer resistor 50 K	301/8	A 2
06 542 00	Filter MKACS-K4164HM	Filter MKACS-K4164HM	FI 203	A 1
23 423 00	Filter LPF-V10A1	Filter LPF-V10A1	301-2	A 9
31 289 00	Filter AM-ZF	Filter AM-ZF	FI 204	A 4
31 310 00	Filter Keramik 455	Filter ceramic 455	FI 205	A 4
31 762 00	Keramik-Filter SFE 10,7	Ceramic filter SFE 10.7	201-2	A 3
31 311 00	Spule MW-Osz.	Coil MW osc.	L 401	A 4
31 944 00	Spule LW-Oszi. 140 µH	Coil LW 140 µH	L 402	A 3
31 656 00	Tastatur 3fach	Switch band	S 1	C 0
31 510 00	Relais 12 V 2 U	Relay 12 V	RE 301	B 6
18 154 00	Lampe blau	Lamp blue	L 701	A 6
18 155 00	LCD-Display	LCD display		C 3
31 530 00	Tuner-UKW	Tuner FM		D 1
20 889 00	Ferritantenne	AM antenna		B 8
31 495 00	Antennenbox	Box antenna		A 5
39 004 00	**Bedienteil**	**Control P.C.B.**	**ST 22**	**C 4**
11 241 00	Diode 1 N 4148	Diode 1 N 4148	11-15	A 2
23 366 00	Taste KHH 10908	Switch	16 X	A 4
20 893 00	Antennenbuchse kpl.	Jack P.C.B.	ST 24	B 0
17 035 00	Koax-Antennenstecker	Jack coase	ANTFM	A 7
13 330 00	Wurfantenne 75 Ohm (mit Hülse)	Cable antenna		A 4
20 890 00	Chinchbuchsen kpl.	Jack P.C.B. Chinch	ST 25	B 0
31 502 00	Chinchbuchse 2fach	Jack Chinch 2-pin	TUNER	A 5

Explosionsdarstellung 6100 ST/6200 ST
Exploded view 6100 ST/6200 ST



Ersatzteilliste 6200 ST
Spare parts list 6200 ST

Bestell-Nr./Part. No.	Bezeichnung	Description	Position	Preisgruppe/ Price group
31 466 00	Deckel	Cabinet	ST 1	C 3
31 465 00	Gehäuse-Unterteil	Bottom chassis	ST 2	B 9
18 143 00	Gehäusefuß	Housing foot	ST 3	A 3
18 175 00	Rückwand	Rear panel	ST 4	B 9
41 349 00	Frontteil	Front panel	ST 5	C 9
41 107 00	Schriftzug Schneider	Badge "Schneider"	ST 6	A 5
18 170 00	Anzeigeblende	Window display	ST 7	B 5
31 863 00	Tastenknopf Program	Knob program	ST 8	A 1
31 864 00	Druckfeder	Pressure Spring	ST 9	A 0
18 164 00	Tipp-Tastenknopf Tuning	Knob Tuning	ST 10	A 7
31 641 00	Druckfeder	Spring	ST 11	A 0
18 166 00	Tastenknopf Muting, Level	Knob Muting, Level	ST 12	A 5
18 167 00	Tastenknopf Auto/Man	Knob Auto/Man	ST 13	A 4
18 220 00	Tastenknopf Power on/off	Power on/off	ST 14	A 4
31 126 00	Druckfeder Tipptaste	Spring	ST 15	A 0
23 925 00	Stöpsel-Taste	Knob spacer	ST 16	A 1
39 054 00	**Netzteilplatine**	**Power supply P.C.B.**	**ST 20**	**D 5**
38 037 00	Zenerdiode ZPD 33	Zenerdiode ZPD 33	D 501	A 1
11 239 00	Diode 1 N 4002	Diode 1 N 4002	D 504-507	A 1
11 241 00	Diode 1 N 4148	Diode 1 N 4148	D 502, 503	A 2
31 846 00	Netzschalter	Power switch	S 501	B 5
31 814 00	Ringkerntrafo	Power transformer		D 6
39 072 00	**HF-Platine**	**RF P.C.B.**	**ST 21**	**G 7**
31 309 00	Transistor BF 451	Transistor BF 451	T 201-203	A 3
31 318 00	Transistor BC 550	Transistor BC 550	T 601-603	A 1
23 964 00	Transistor BC 547 B T 092	Transistor BC 547 B T 092	T 101, 301, 303, 304, 701-705	
23 965 00	Transistor BC 558 B T 092	Transistor BC 558 B T 092	T 302, 305	A 4
31 463 00	Diode 1 N 4148 (A)	Diode 1 N 4148 (A)	D 701, 702	A 1
23 951 00	Diode 1 N 4148	Diode 1 N 4148	D 303 . . .	A 2
31 317 00	Zenerdiode ZPD 5,6	Zenerdiode ZPD 5.6	D 305	A 1
38 102 00	Quarz 4,5 MHZ	Crystal 4.5 MHZ	Q 701	A 8
23 391 00	Drossel 47 µH	Microinductor 47 µH	Dr. 201	A 3
03 847 00	IC LM 340 T 12	IC LM 340 T 12	IC 101	B 1
06 976 00	IC LM 324 N	IC LM 324 N	IC 703, 704	B 0
38 077 00	IC TDA 1576	IC TDA 1576	IC 201	B 8
15 107 00	IC TDA 1578 A	IC TDA 1578 A	IC 301	C 1
23 257 00	IC LA 6458 DS	IC LA 6458 DS	IC 302	A 9
23 701 00	IC 7805 1,5 A	IC 7805 1.5 A	IC 702	B 1
31 481 00	IC UPD 1708 A	IC UPD 1708 A	IC 701	D 2
01 253 00	Trimmpoti 10 K LIN	Trimmpoti 10 K LIN	R 726	A 3
01 255 00	Trimmpoti 50 K/47 K	Trimmpoti 50 K/47 K	R 301, 303	A 2
01 256 00	Trimmpoti 5 K/4 K 7	Trimmpoti 5 K/4 K 7	R 221	A 4
01 592 00	Trimmpoti 2 K 5/2 K 2	Trimmpoti 2 K 5/2 K 2	R 316	A 4
38 078 00	Trimmpoti 47 R	Trimmpoti 47 R	R 216	A 2
38 158 00	Trimmpoti 100 K	Trimmpoti 100 K	R 350	
23 423 00	Filter LPF-V10A1	Filter LPF-V10A1	Fi 301, 302	A 9
38 079 00	Keramik-Filter rot 10,7	Ceramic filter red 10.7	Fi 201, 202	B 4
38 080 00	Keramik-Filter rot 10,7	Ceramic filter red 10.7	Fi 203, 204	B 2
38 082 00	Spule Quadratur	Coil quadruple	L 201, 202	A 3
31 847 00	Tastatur 3fach	Key set 3key		B 5
31 510 00	Relais 12 V RHM	Relay 12 V RHM	Rel 301	B 6
31 502 00	Chinch-Buchse 2fach	Chinch jack double		A 5
38 081 00	Tuner FE 502	Tuner FE 502		E 2
18 176 00	Lampe blau für Display	Lamp blue for display	La 1	A 8
18 155 00	LCD-Display	LCD display		C 3
15 122 00	Akkumulator 60 DK NI-CD 1,2 V	Accumulator 60 DK NI-CD 1.2 V		B 4
39 004 00	**Bedienteilplatine**	**Control P.C.B.**	**ST 22**	**C 4**
11 241 00	Diode 1 N 4148	Diode 1 N 4148	D 711-715	A 2
23 366 00	Taste	Push switch		A 4
39 052 00	**Anzeigeplatine**	**Display P.C.B.**	**ST 23**	**D 3**
02 423 00	IC U 237 BG	IC U 237 BG	IC 401	B 5
02 424 00	IC U 247 BG	IC U 247 BG	IC 402	B 5
15 018 00	Leuchtdiode V 513 P	LED V 513 P yellow	D 401, 402, 411, 413	A 0
15 019 00	Leuchtdiode V 510 P	LED V 510 P red	D 403-410, 412	A 0
18 238 00	Antennenbuchse	Antenna jack P.C.B.	ST 24	B 0
17 035 00	Koax-Antennenstecker	Antenna jack coaxial	FM	A 7
13 330 00	Wurfantenne 75 Ohm	Cable antenna		

Abgleichanweisung 6200 ST

1. ZF-Abgleich
- Mit Wobbelsender 87,5 MHz 56 dB µV über Antenneneingang.
- Sichtgerät über HF-Testkopf an Pin 15 TC 201 anschließen. – Empfänger auf 87,5 MHz einstellen.
- Mit ZF-Kreis im UKW-Teil Durchlaßkurve auf Maximum abgleichen.
- Durchlaßkurve mit Poti R 216 auf 5 mV einstellen (Regelbereich R 216 = 2 –40 mV).

2. Quadraturabgleich
- Mit Sender 56,00 MHz 1 mV, 40 kHz Hub über Antenne einspeisen.
- NF-Regelsteller auf max. Ausgangsspannung einstellen.
- Mit L 202 NF-Maximum einstellen.
- Mit L 201 Klimfaktor-Minimum.
- Abgleich wiederholen bis DC-Spannung zwischen Pin 8 und 9 (IC 201) gleich 0 V ist.
- Dabei NF-Ausgangsspannung ca. 800 mV.
- NF-Regelsteller auf 450 mV einstellen.

3. Regelspannung
- HF-Pegel wie bei 2.
- Mit Poti R 221 7,5 V an Pin 9 UKW-Teil einstellen.

4. Begrenzungseinsatz
- Mit Sender 96,00 MHz 1 mV 40 kHz Hub über Antenneneingang.
- NF-Millivoltmeter auf 0 dB einstellen.
- Sender auf 1 µV einstellen. (Bei 50 R –1 dB µV)
- Mit Poti R 216 NF-Pegel auf –3 dB einstellen.

5. Feldstärke LED-Anzeige
- Über Antenne 5 mV HF-Pegel einspeisen.
- Mit Poti R 726 letzte LED zum Leuchten bringen.

6. Kontrolle der Eingangsempfindlichkeit

87,5 MHz 0,8 µV dabei $S/N > 26$ dB
96,00 MHz 0,8 µV dabei $S/N > 26$ dB
108,00 MHz 0,8 µV dabei $S/N > 26$ dB

7. Decoder-Abgleich
- Pin 4 + 8 IC 301 mit 10 kΩ miteinander verbinden.
- Sender 98 MHz 1 mV unmoduliert.
- Mit Poti R 303 76 kHz einstellen.

8. Stereo-Schaltschwelle
- Multiplex-Signal mit 10 µV HF-Pegel über Antenne einspeisen.
- Poti R 316 so einstellen, daß im Display Stereo-Symbol ⊙⊙ angezeigt wird.

9. Kanaltrennung
- Multiplex-Signal mit 1 mV HF-Pegel, L-Kanal mod. über Antenne einspeisen.
- Mit Poti R 301 max. Kanaltrennung einstellen, R-Kanal moduliert.
- Mit Poti R 350 max. Kanaltrennung einstellen.

10. 19/38 Filter
- Multiplex-Signal mit 1 mV HF-Pegel unmoduliert einspeisen.
- Mit Filter 301/302 max. Sperrtiefe einstellen.

Alignment instructions 6200 ST

1. IF-alignment
- Input with sweep generator a signal with 87.5 MHz, 56 dB µV to antenna jack.
- Connect oscilloscope via RF-probe to Pin 15 of IC 201.
- Set the tuner to 87.5 MHz.
- Adjust the IF-amplitude to maximum with IF filter of UKW unit.
- Adjust the IF amplitude to 5 mV with R 215 (range of adjustment R 216 = 2 –40 mV)

2. Quadrature alignment
- Input with RF generator a signal of 56 MHz, 1 mV, 40 kHz deviation to the antenna jack.
- Set output level to maximum output voltage.
- Adjust with L 202 to AF-maximum and with L 201 distortion minimum.
- Repeat the same procedure until DC voltage between Pin 8 and 9 of IC 201 becomes 0 V (AF-output voltage ca. 800 mV)
- Set output level to 450 mV.

3. Control voltage
- RF-level as same as point 2. Adjust with R 221 to a potential of 7.5 voltage on Pin 9 of UKW Tuner.

4. Limiting threshold
- Input with RF generator a signal of 96.00 MHz/1 mV/40 kHz deviation to the antenna jack.
- AF-millivoltmeter is set ot 0 dB.
- Set RF generator to 1 µV.
- Adjust AF-level with R 216 to –3 dB.

5. Field-intensity LED-display
- Input a RF-signal of 5 mV to the antenna jack.
- Adjust R 726 so that all LEDs light.

6. Controlling of input sensitivity

87.5 MHz 0.8 µV with $S/N > 26$ dB
96.00 MHz 0.8 µV with $S/N > 26$ dB
108.00 MHz 0,8 µV with $S/N > 26$ dB

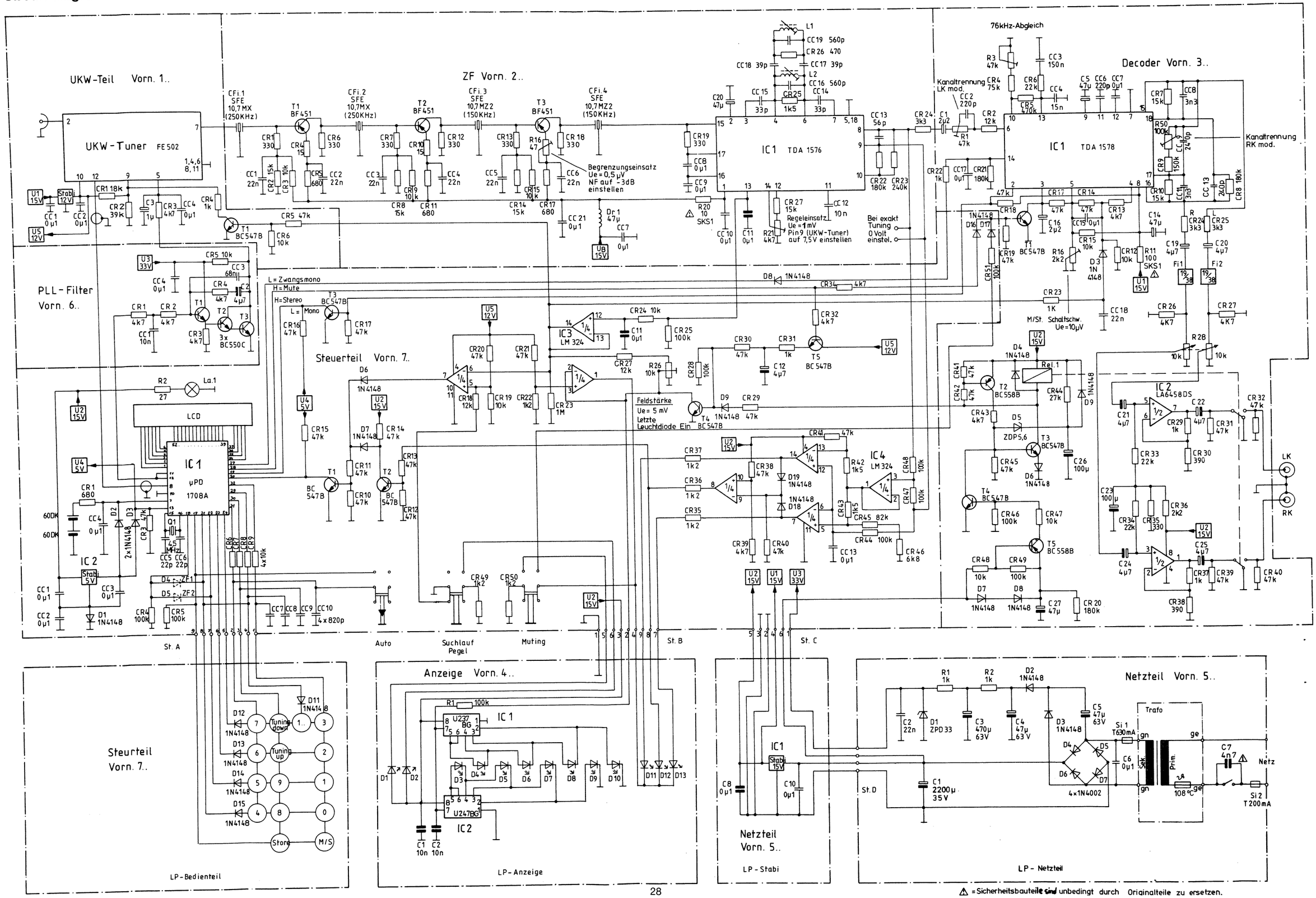
7. Decoder adjustment
- Connect Pin 4 and 8 of IC 301 with a 10 kOhm resistor.
- RF generator 98 MHz, 1mV unmodulated.
- Adjust with R 303 to 76 kHz.

8. Mono/Stereo threshold
- Input Multiplex signal with 10 µV RF level to the antenna jack.
- Adjust R 316 so that the stereo symbol ⊙⊙ lights in the display.

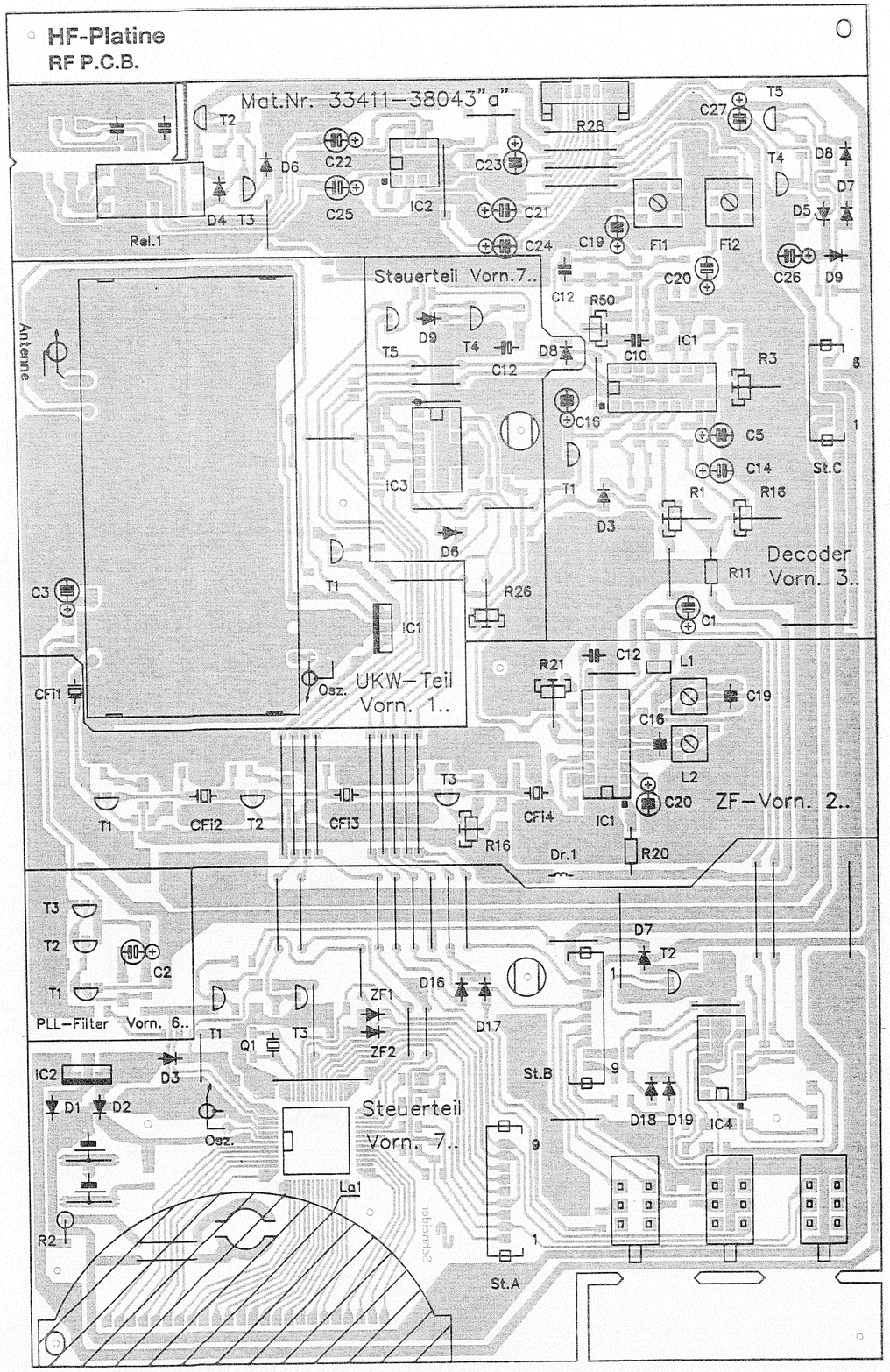
9. Cross-talk
- Input Multiplex signal with 1 mV RF level, left channel modulated to antenna jack.
- Adjust with R 301 cross-talk to a minimum.
- Right channel modulated.
- Adjust with R 350 cross-talk to a minimum.

10. 19/38 Filter
- Input Multiplex signal with 1 mV RF level unmodulated to the antenna jack.
- Adjust with filter 301/302 to maximum damping.

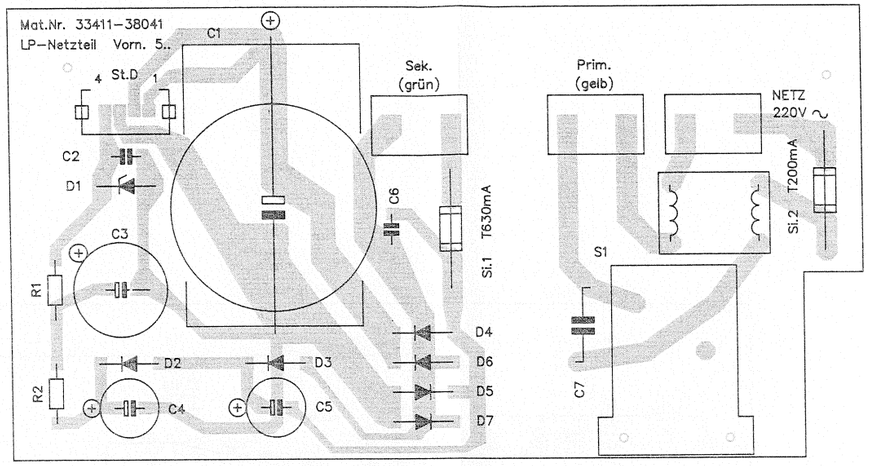
Schaltbild 6200 ST
Circuit diagram 6200 ST



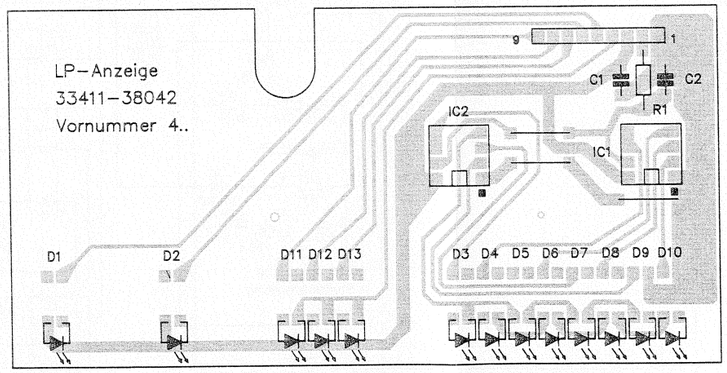
Platinendarste llungen 6200 ST
P.C.B. diagrams 6200 ST
Bestückungsseite/Top view



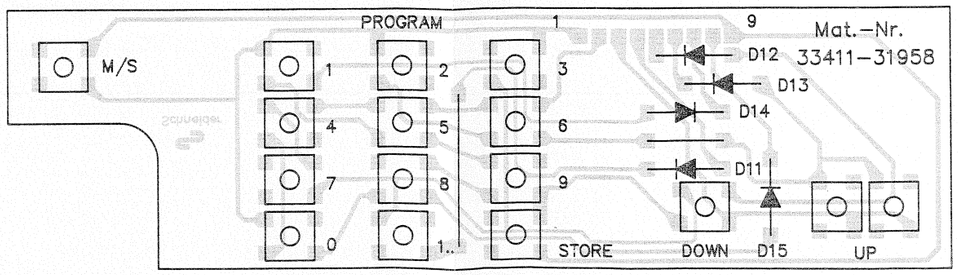
Netzteilplatine
Power supply P.C.B.



Anzeigeplatine
Display P.C.B.



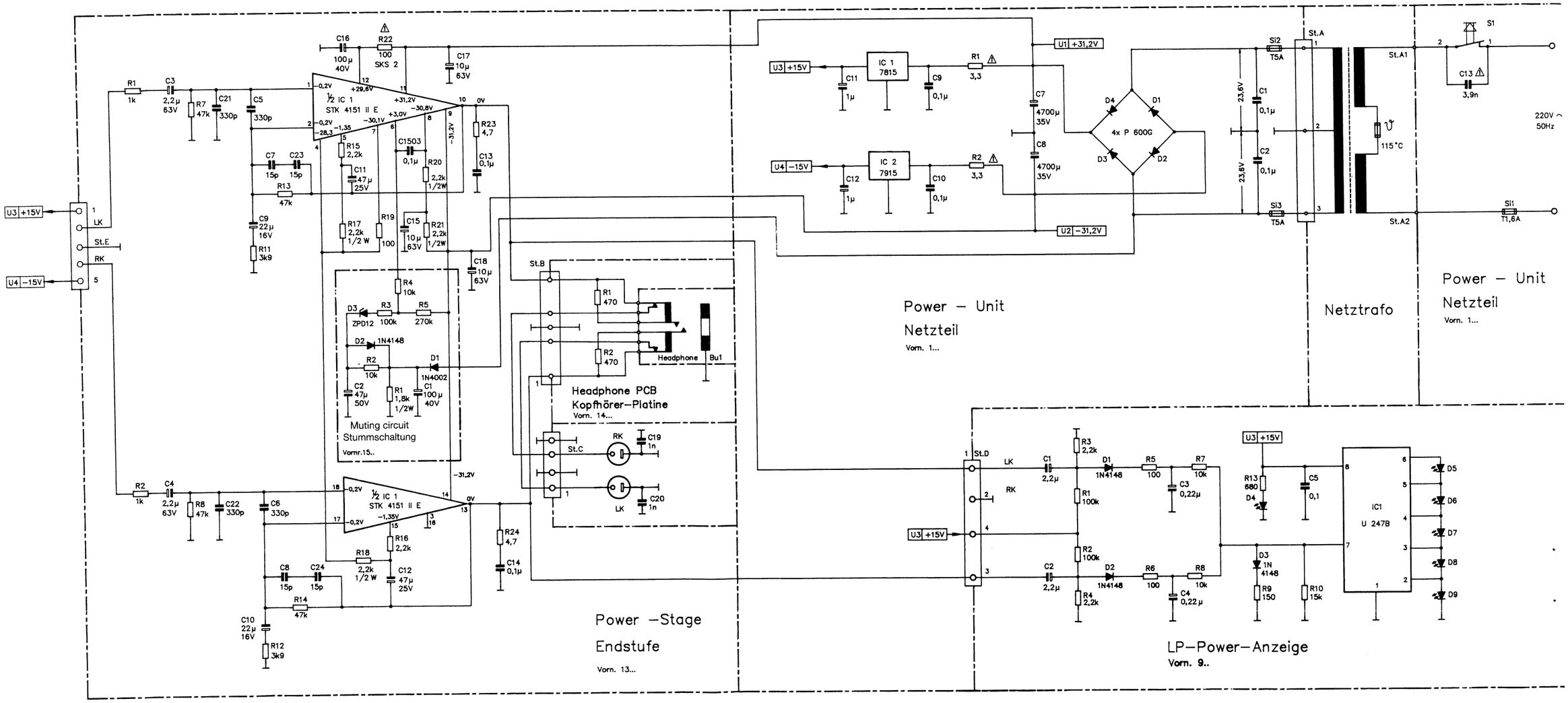
Bedienteilplatine
Control P.C.B.



Schaltbild NF 6100 PA
Circuit diagram AF 6100 PA

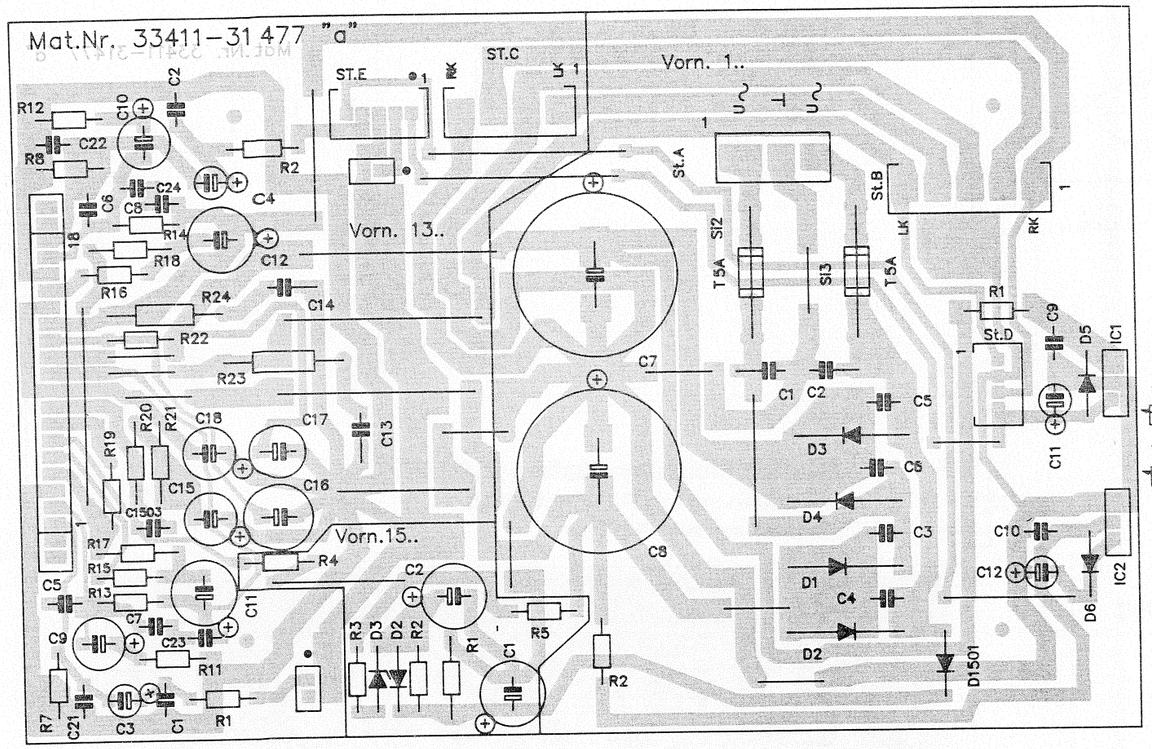
⚠ = Sicherheitsbauteile sind unbedingt durch Originalteile zu ersetzen

⚠ = Please use original spare parts only

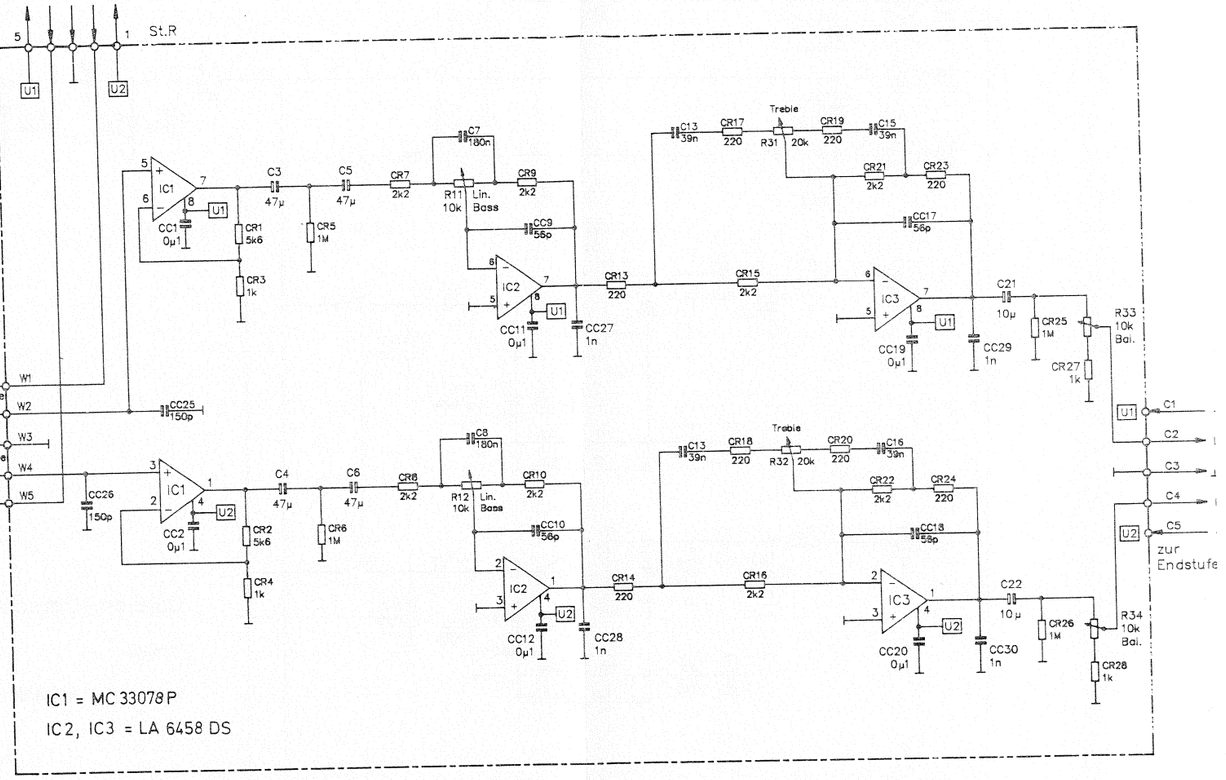


Platinendarstellungen 6100 PA
P.C.B. diagrams 6100 PA
Bestückungsseite/Top view

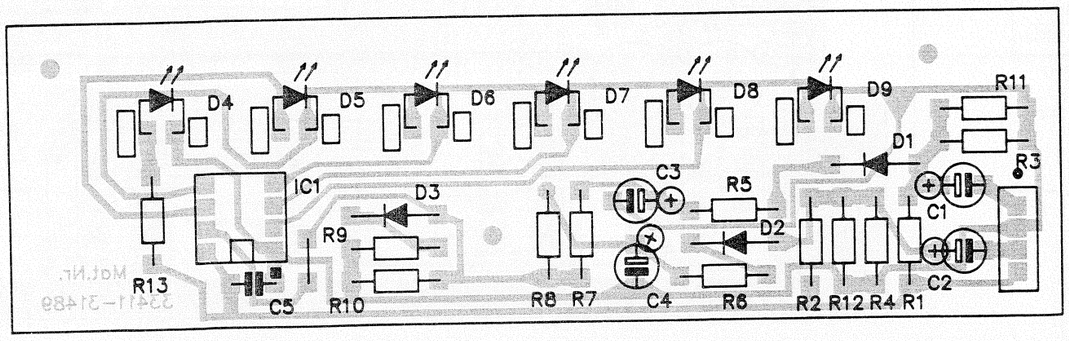
NF + Netzteilplatine
AF + Power supply P. C.B.



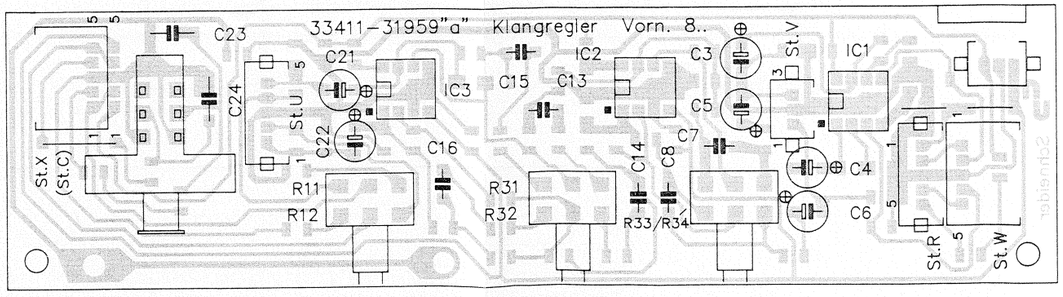
Klangregelung 6100 PA
Tone control 6100 PA



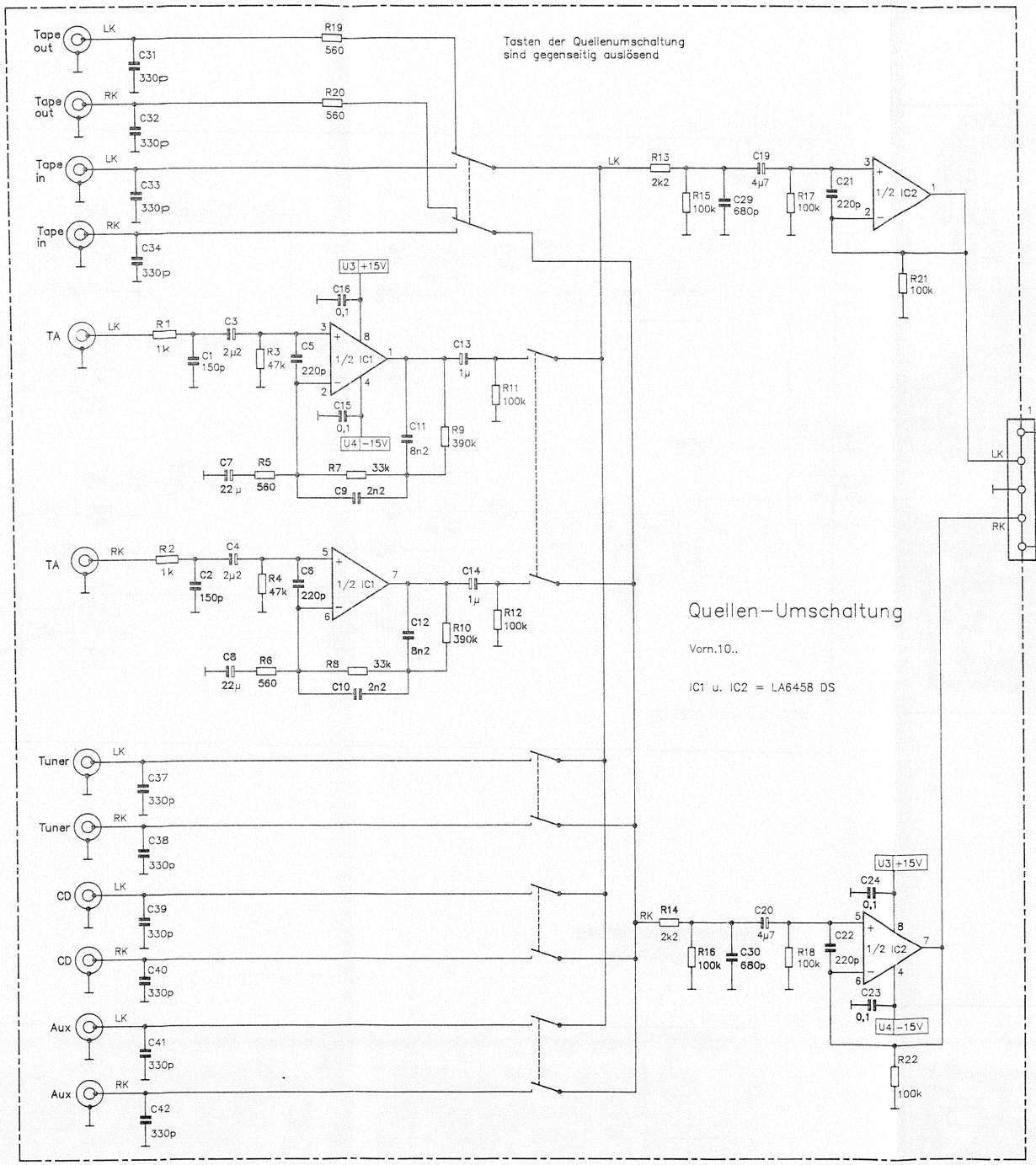
Anzeige-Platine
Indication P.C.B.



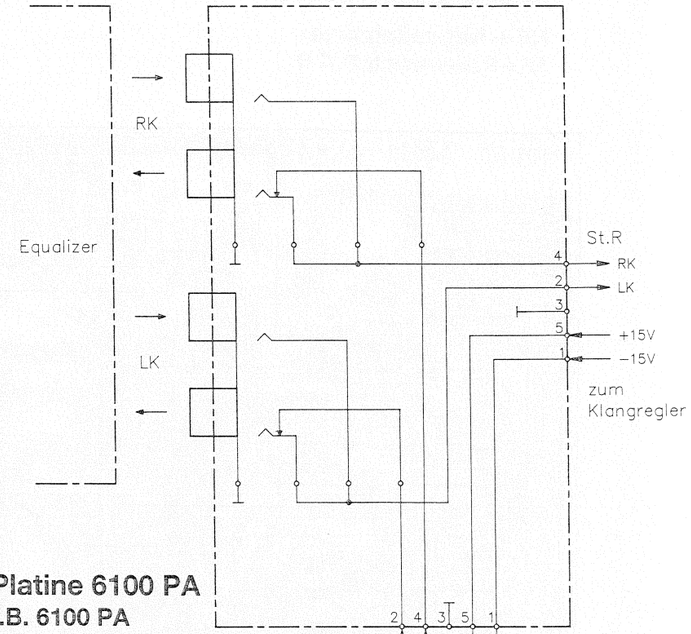
Klangreglerplatine
Tone control P.C.B.



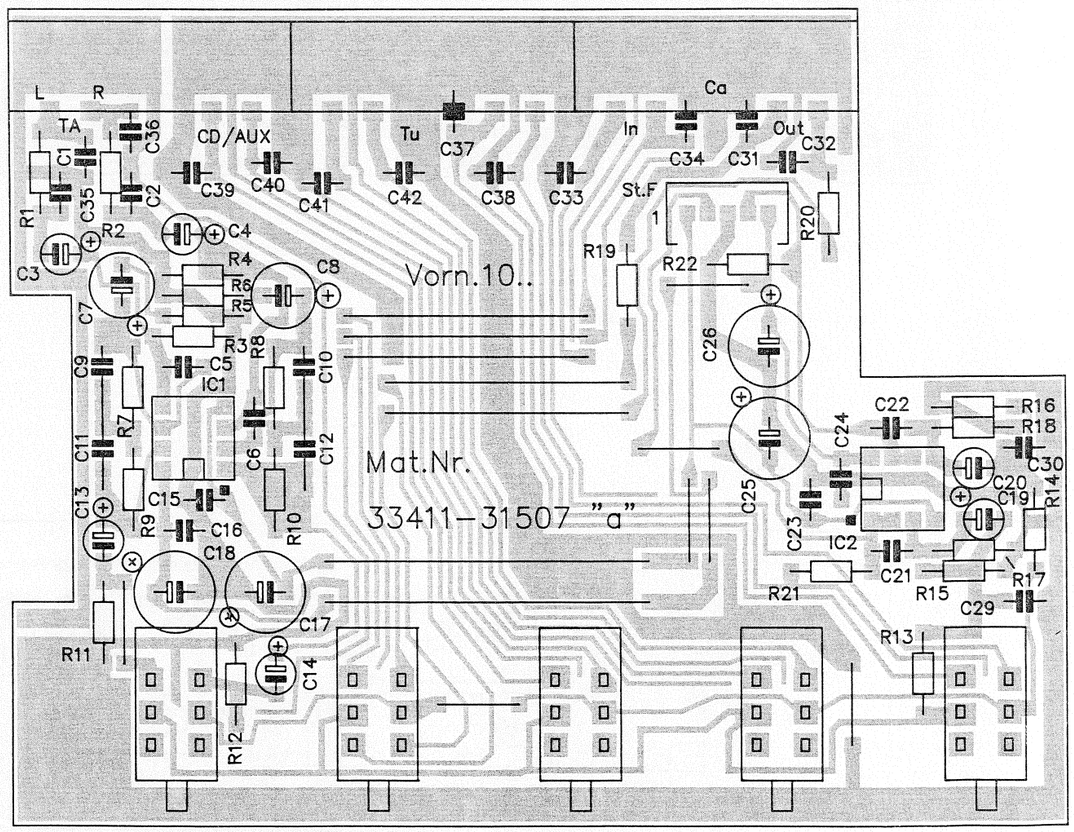
Quellenumschaltung 6100 PA
Function switch circuit diagram 6200 PA



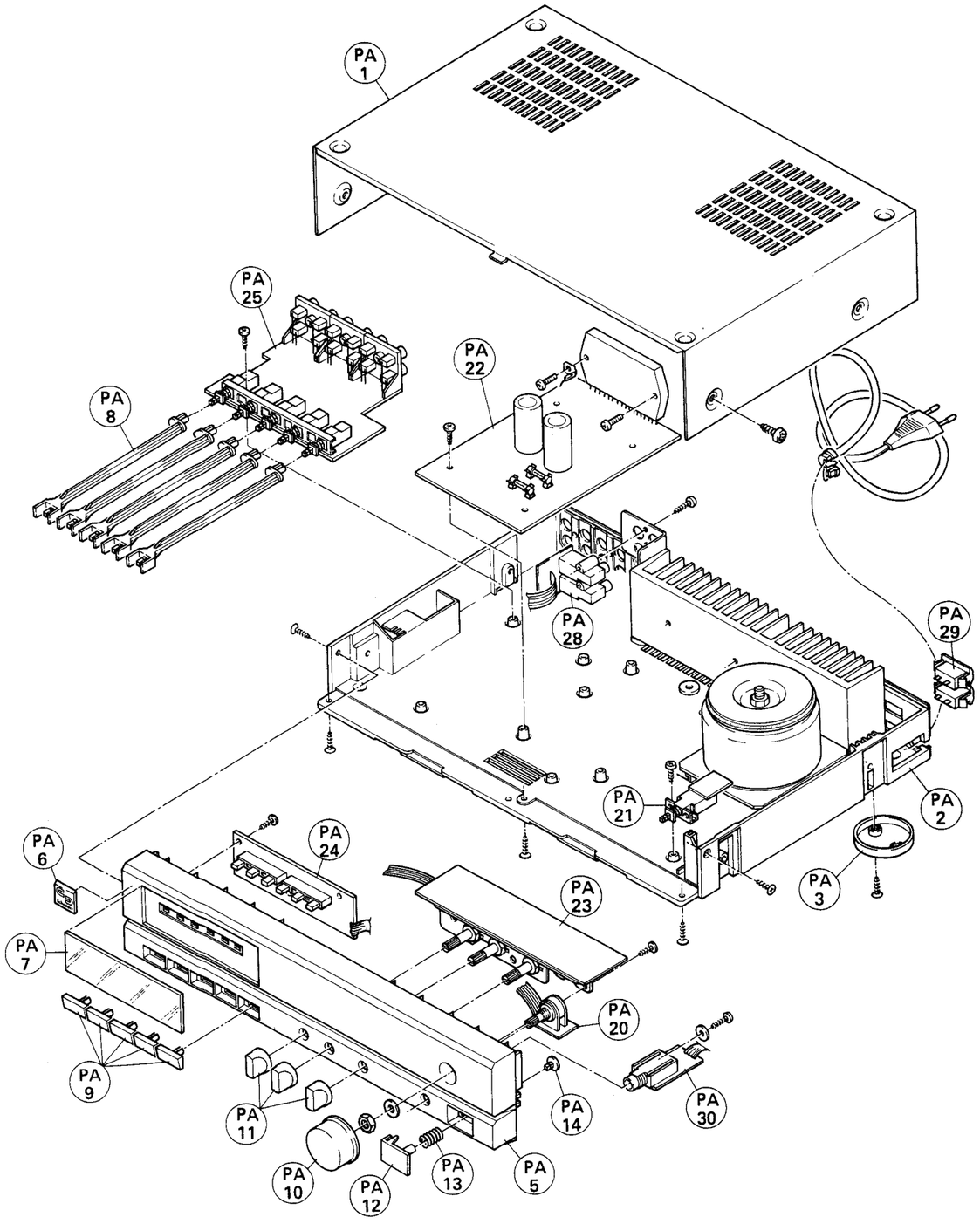
Equalizer-Anschluß 6100 PA
EQ connection 6100 PA



Quellenschalter-Platine 6100 PA
Function switch P.C.B. 6100 PA
Bestückungsseite/Top view



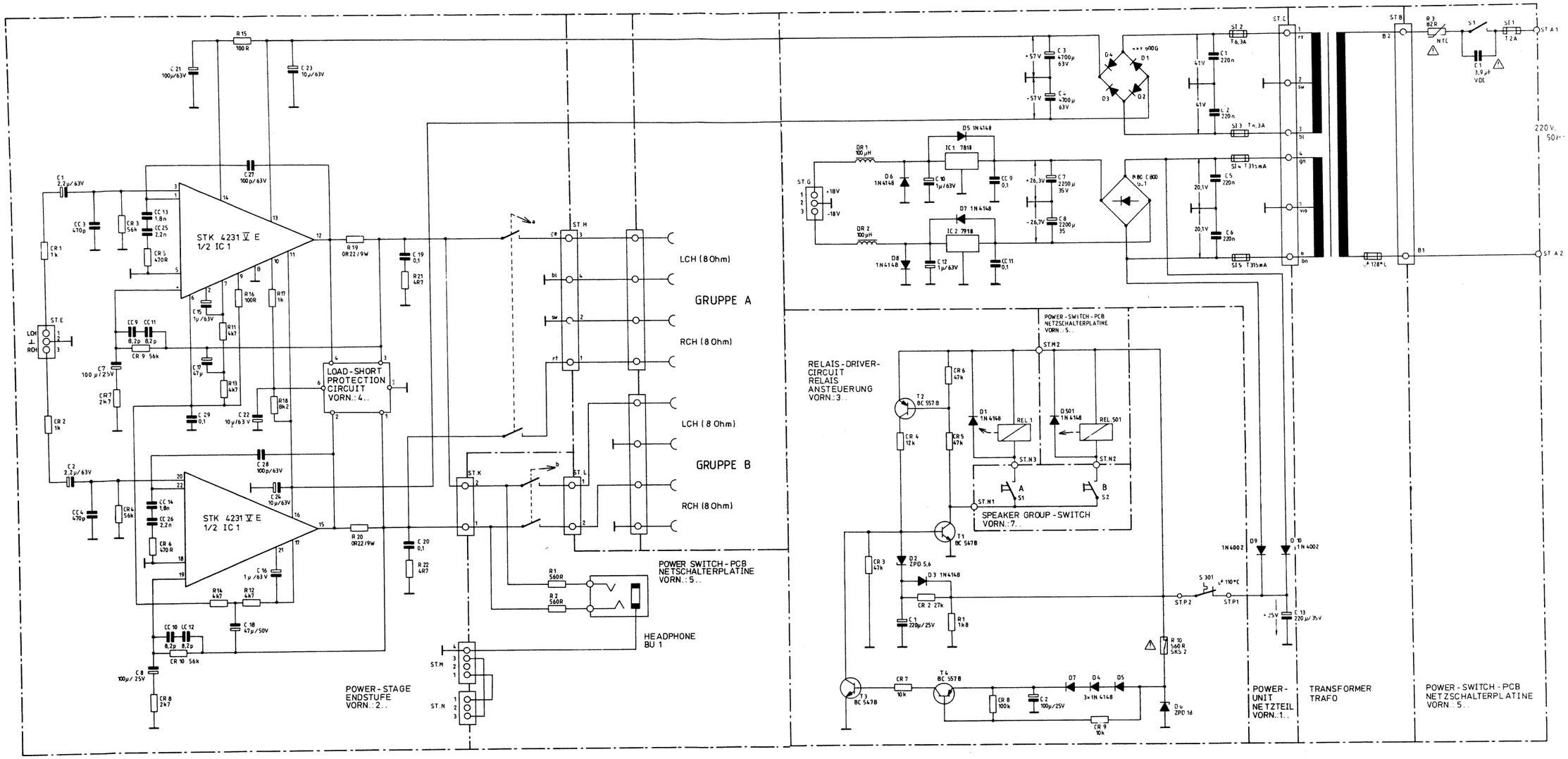
Explosionsdarstellung 6100 PA
Exploded view 6100 PA

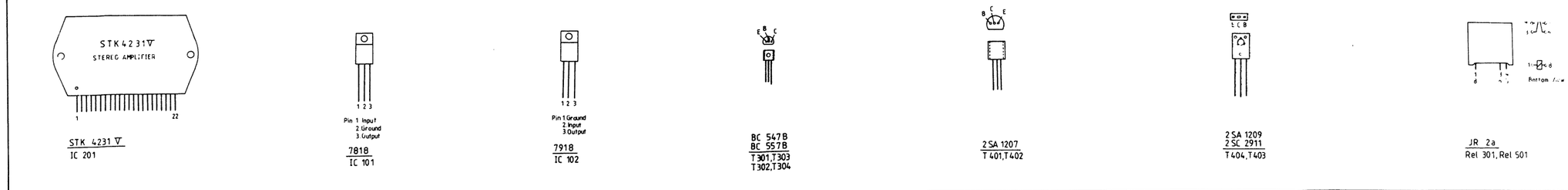


Ersatzteilliste 6100 PA
Spare parts list 6100 PA

Bestell-Nr./Part. No.	Bezeichnung	Description	Position	Preisgruppe/ Price group
18 200 00	Deckel	Cabinet	PA 1	C 8
31 465 00	Gehäuse-Unterteil	Bottom chassis	PA 2	B 9
18 143 00	Gehäusefuß	Housing foot	PA 3	A 3
41 110 00	Frontteil	Front panel	PA 5	C 9
41 107 00	Schriftzug Schneider	Badge Schneider	PA 6	A 5
18 181 00	Anzeigeblende	Window display	PA 7	B 5
18 186 00	Schalterstange	Switch rod	PA 8	A 7
18 167 00	Tastenknopf Betriebsart	Knob function	PA 9	A 4
18 140 00	Alu-Drehknopf Lautstärke	Knob rotary volume	PA 10	B 7
18 141 00	Knebelknopf Bass, Treble, Balance	Knob Bass, Treble, Balance	PA 11	A 5
18 220 00	Tastenknopf Power on/off	Knob Power on/off	PA 12	A 4
31 126 00	Druckfeder Tipptaste	Spring	PA 13	A 0
23 925 00	Stöpsel-Taste	Knob spacer	PA 14	A 1
39 010 00	**Lautstärkeregler Platine kpl.**	**Volume resistor P.C.P. assembly**	**PA 20**	**B 8**
31 965 00	Lautstärkeregler 10 K	Volume resistor 10 K		B 3
39 055 00	**NF- und Netzteilplatine**	**AF- and Power supply P.C.B.**	**PA 22**	**E 8**
31 320 00	IC STK 4151-2	IC STK 4151-2	IC A 301	D 1
23 447 00	IC MC 7815 CT	IC MC 7815 CT	IC 101	B 1
23 256 00	IC LM 7915 CT	IC LM 7915 CT	IC 102	B 2
06 227 00	Zenerdiode ZPD 12	Zenerdiode ZPD 12	D 1503	A 3
11 239 00	Diode 1 N 4002	Diode 1 N 4002	D 1501	A 1
11 241 00	Diode 1 N 4148	Diode 1 N 4148	D 1502	A 2
31 159 00	Diode P 600 G	Diode P 600 G	D 101-104	A 6
39 009 00	**Klangreglerplatine**	**Control P.C.B.**	**PA 23**	**D 9**
31 962 00	Drehwiderstand 2 OK Höhen	Rotary resistor Treble	R 831, 832	B 2
31 963 00	Drehwiderstand 1 OK Tiefen	Rotary resistor Bass	R 811,812	B 2
31 964 00	Drehwiderstand Balance	Rotary resistor Balance	R 833, 834	B 2
23 257 00	IC LA 6458 DS	Rotary resistor	IC 802,803	A 9
31 961 00	IC MC 33078 P	Rotary resistor	IC 801	A 6
20 896 00	**Anzeigeplatine**	**Indication P.C.B.**	**PA 24**	**C 1**
02 424 00	IC U 247 B	Indication P.C.B.	IC 901	B 5
11 241 00	Diode 1 N 4148	Indication P.C.B.	D 901-903	A 2
15 018 00	Leuchtdiode V 513 P gelb	LED V 513 yellow	D 4-9	A 5
11 469 00	Diodenhalter	Holder diodes		A 3
39 007 00	**Quellenschalterplatine**	**Function switch P.C.B.**	**PA 25**	**D 6**
23 257 00	IC LA 6458 DS	Function switch P.C.B.	IC 1001,1002	A 9
18 188 00	Tastatur 5fach Betriebsart	Key set 5 functions	Funktion	B 7
23 578 00	Chinch-Buchse 4fach	Chinch jack (4 jacks)	3 X	B 0
39 012 00	**Equalizeranschluß kpl.**	**EQ connector assembly**	**PA 28**	**B 8**
38 069 00	Chinch-Buchse 2fach	Chinch jack (2 jacks)	2 X EQ	A 7
20 925 00	**Lautsprecherbuchse kpl.**	**Speaker jack assembly**	**PA 29**	**B 0**
11 760 00	Buchse Lautsprecher	Speaker jack		A 3
20 900 00	**Kopfhörer-Buchse kpl.**	**Headline jack assembly**	**PA 30**	**B 7**
23 970 00	Buchse-Klinken	Headphone jack	BU 1401	A 9

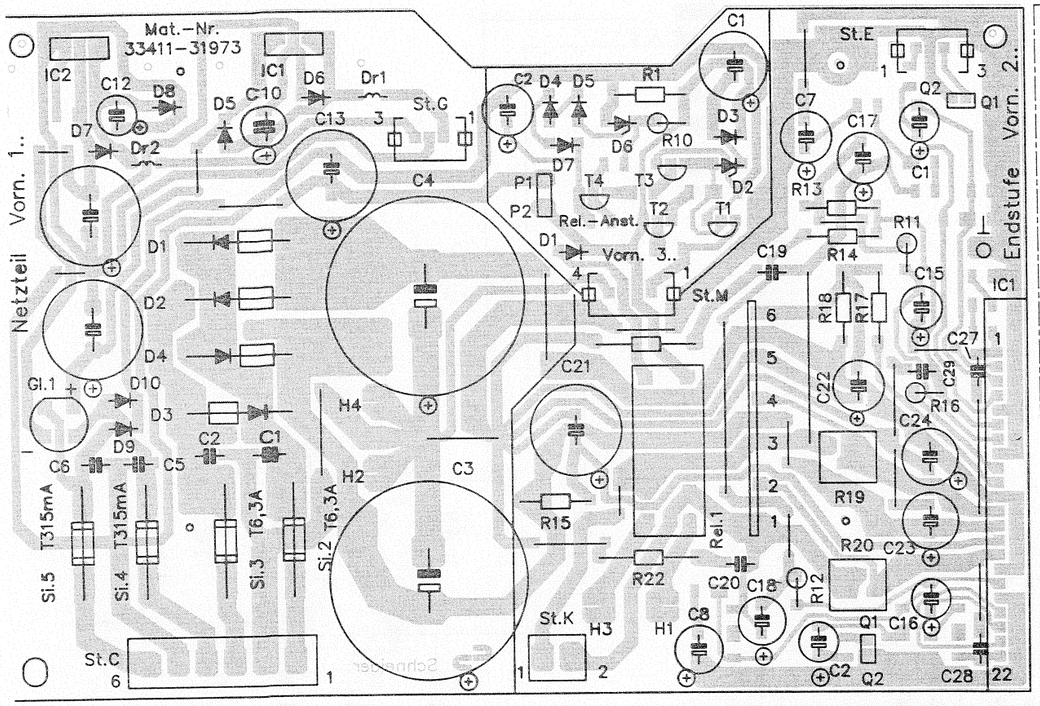
Schaltbild NF 6200 PA
Circuit diagram AF 6200 PA



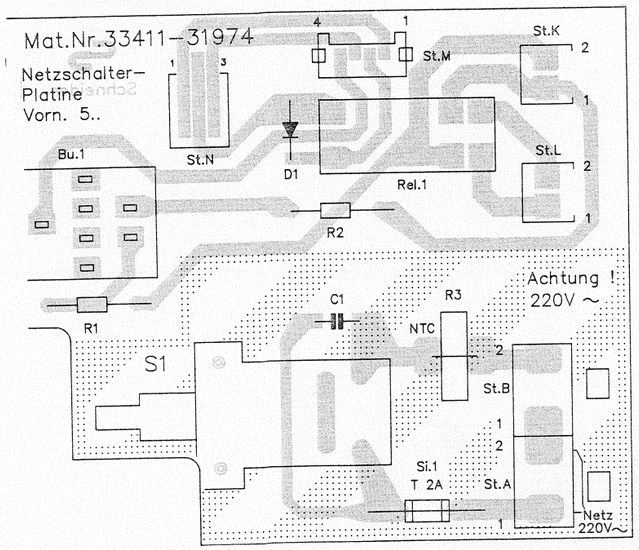


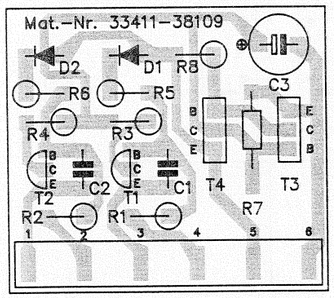
Platinendarstellungen 6200 PA
P.C.B. diagrams 6200 PA
Bestückungsseite/Top view

NF + Netzteilplatine
AF + Power supply P.C.B.

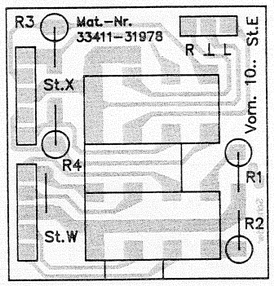


Netzschalterplatine
Power switch P.C.B.

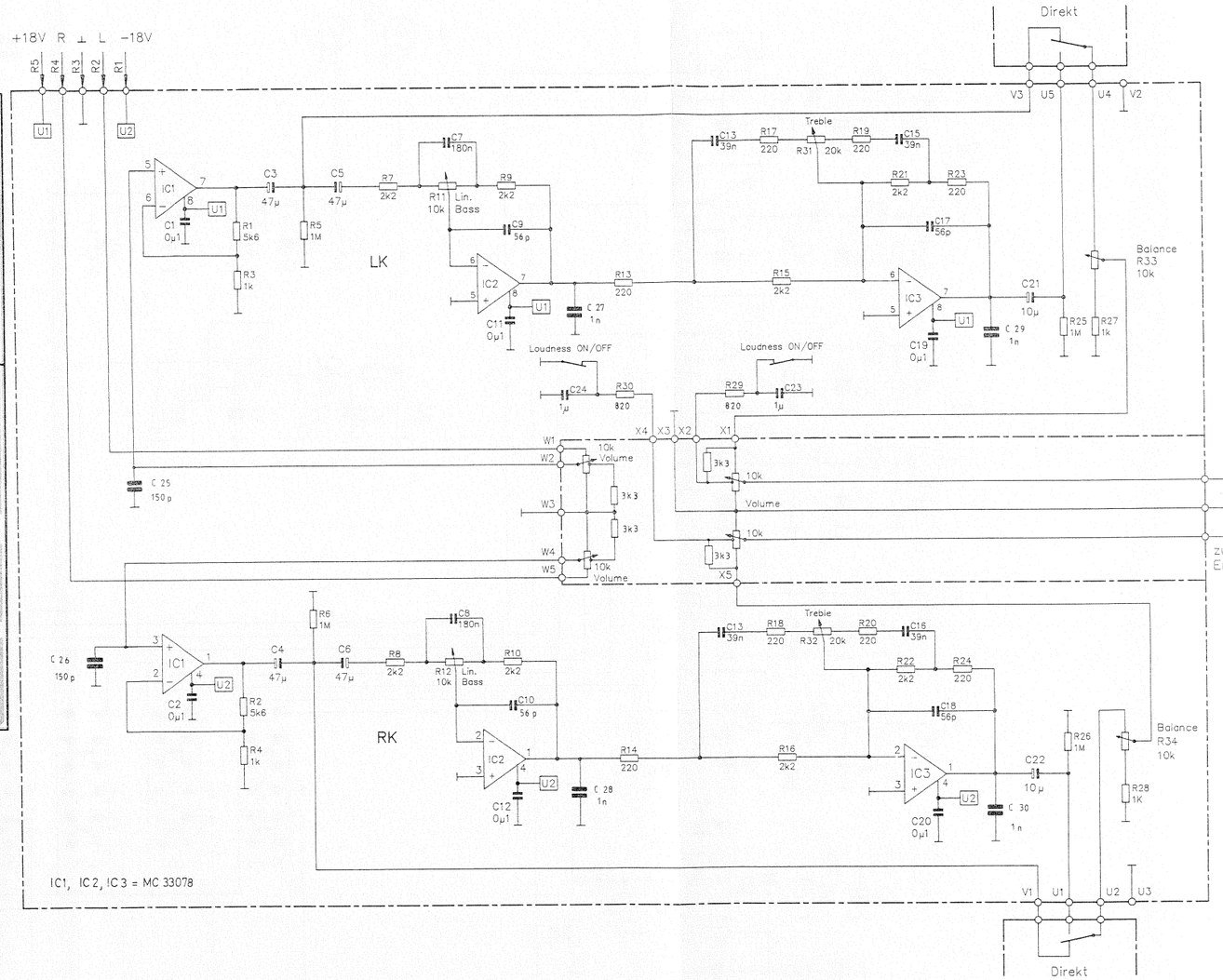




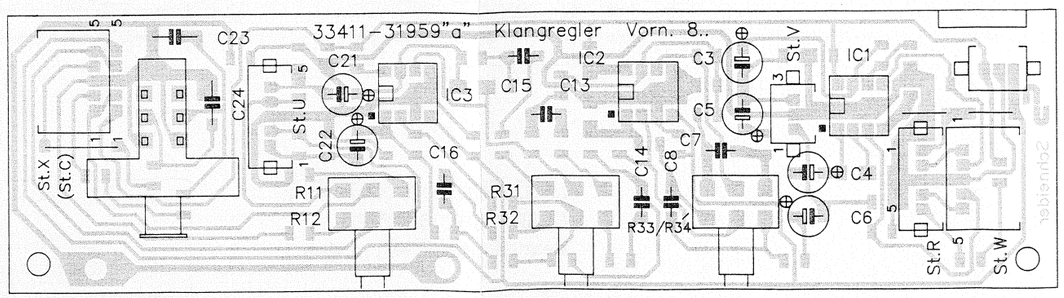
Platine Lautsprecher-umschaltung
Speaker switch P.C.B.



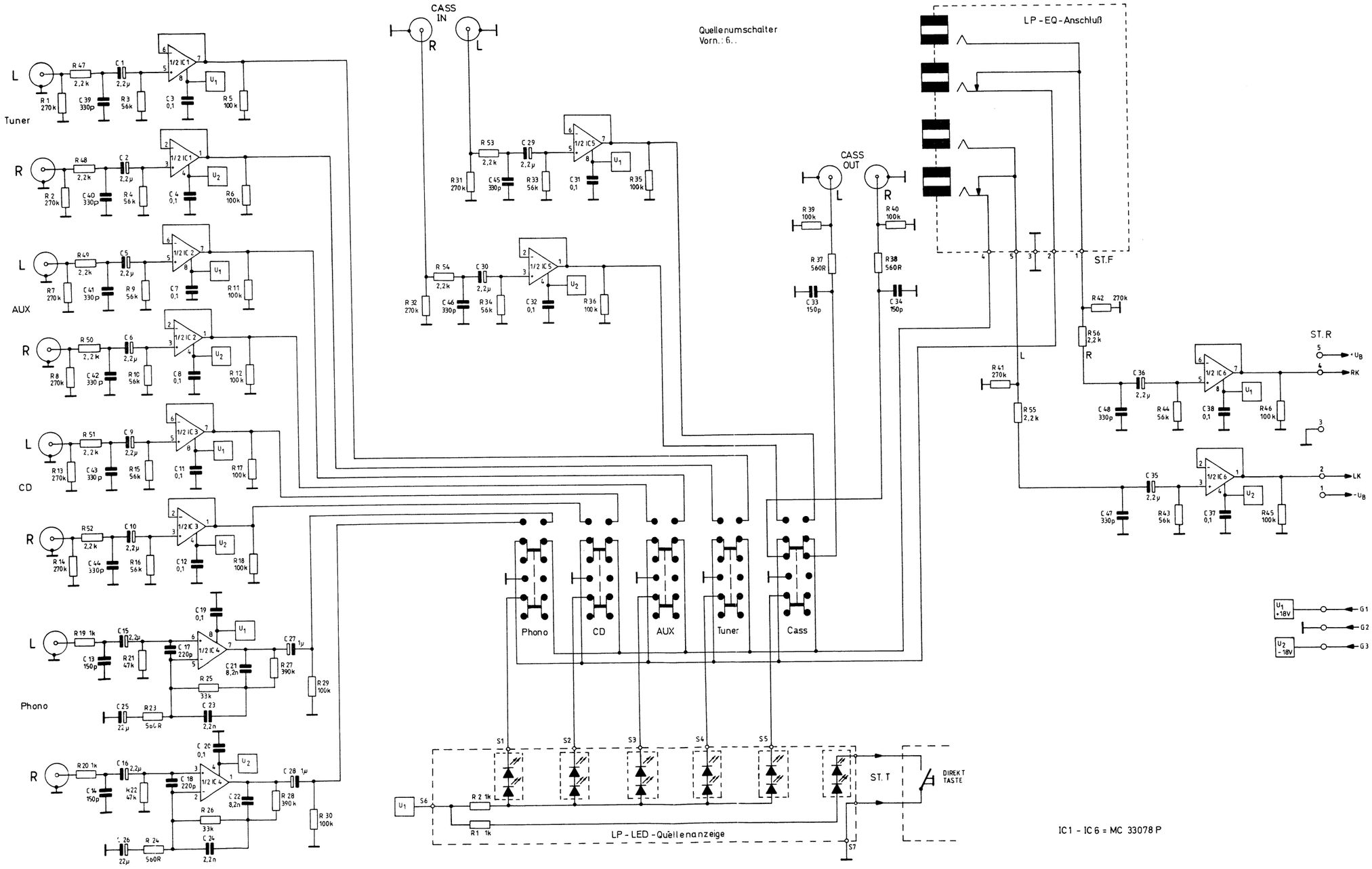
Klangregelung 6200 PA
Tone control 6200 PA



Klangreglerplatine
Tone control P.C.B.

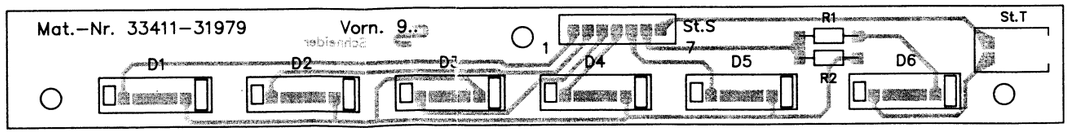


Quellenumschaltung 6200 PA
Function switch circuit diagram 6200 PA

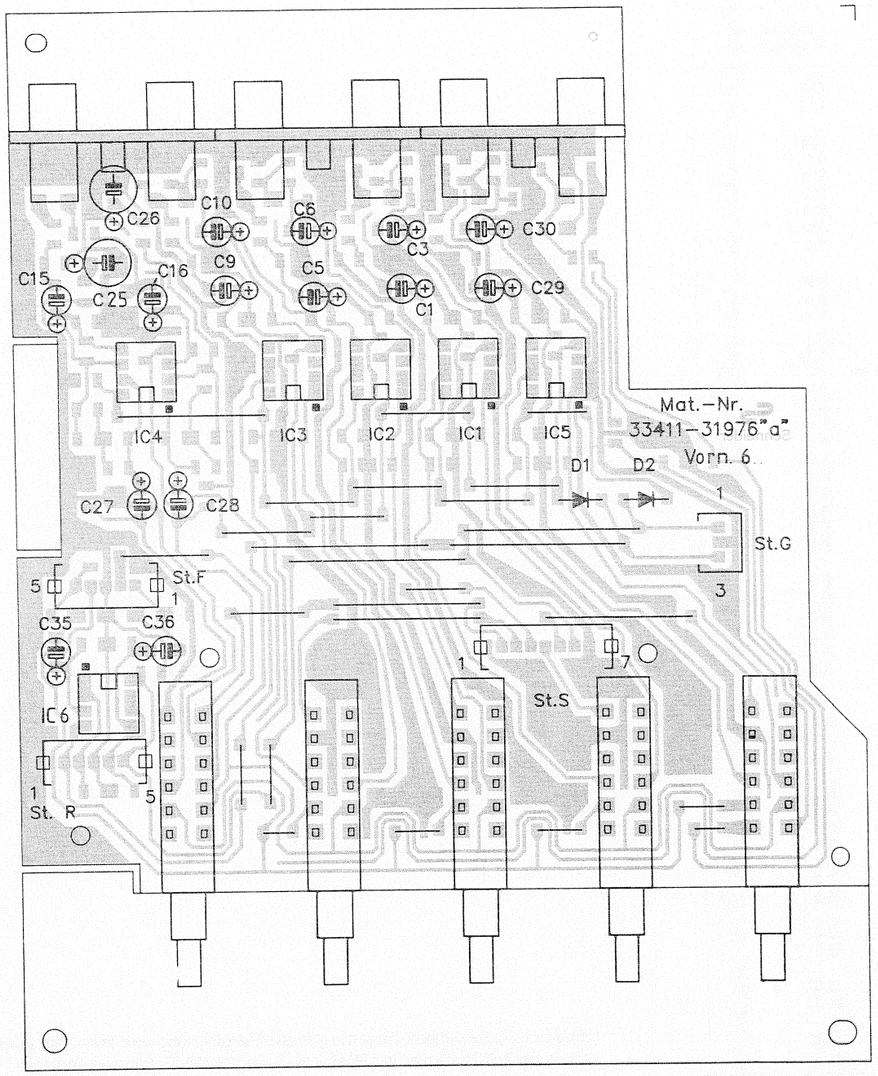


IC 1 - IC 6 = MC 33078 P

LED-Platine 6200 PA
LED P.C.B. 6200 PA
Bestückungsseite/Top view



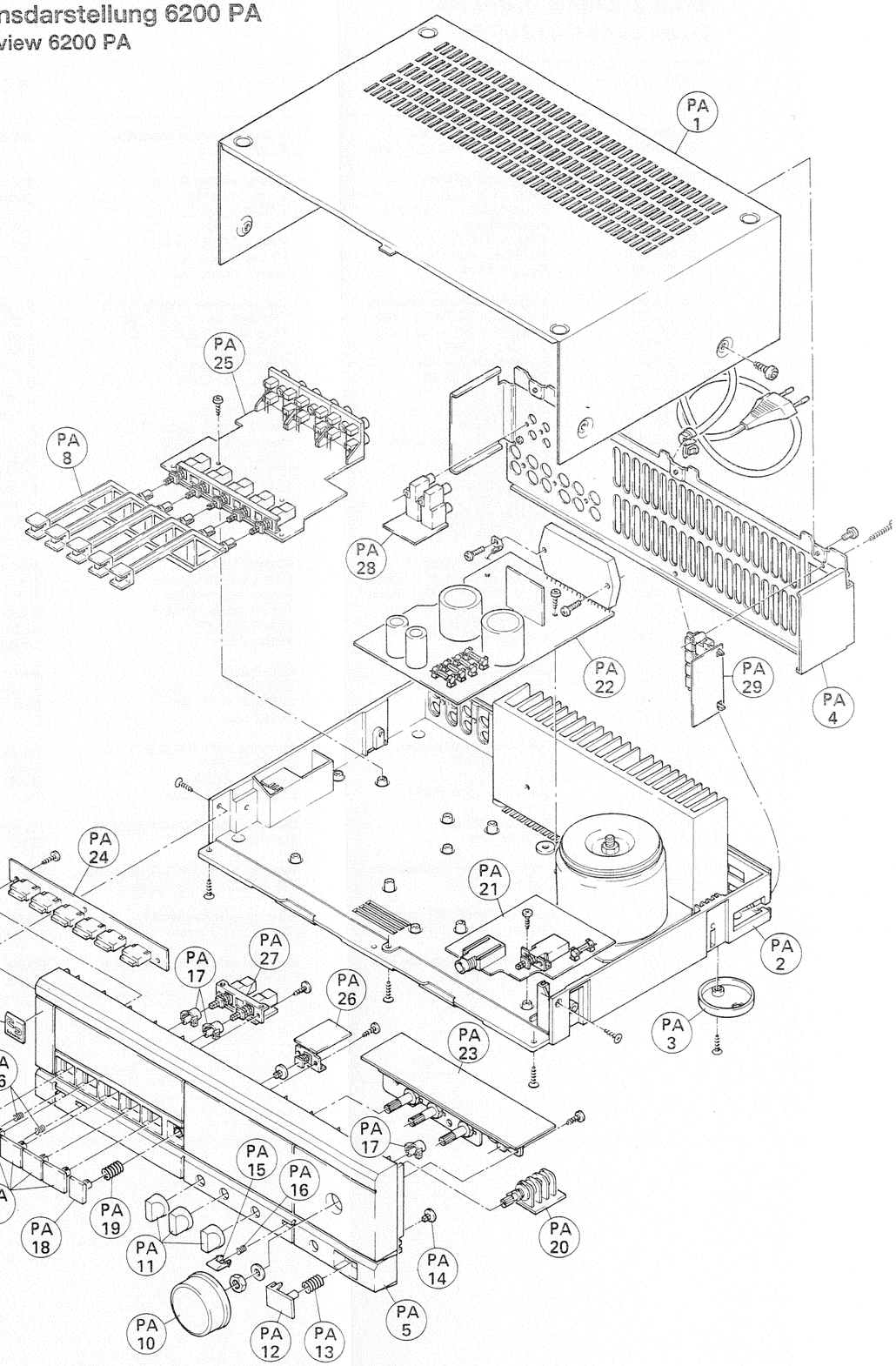
Quellenschalterp latine 6200 PA
Function switch P.C.B. 6200 PA



Ersatzteilliste 6200 PA
Spare parts list 6200 PA

Bestell-Nr./Part. No.	Bezeichnung	Description	Position	Preisgruppe/ Price group
31 939 00	Deckel	Cabinet	PA 1	D 4
18 228 00	Gehäuse-Unterteil	Bottom chassis	PA 2	B 9
18 143 00	Gehäusefuß	Housing foot	PA 3	A 3
18 192 00	Rückwand	Rear panel	PA 4	C 8
41 111 00	Frontteil	Front panel	PA 5	D 5
41 107 00	Schriftzug	Badge Schneider	PA 6	A 5
31 945 00	Schalterstange	Switch rod	PA 8	A 7
18 227 00	Tastenknopf Betriebsart	Knob function	PA 9	A 3
18 137 00	Alu-Drehknopf Volume	Knob rotary Volume	PA 10	B 9
18 141 00	Knebelknopf Bass, Treble, Balance	Knob Bass, Treble, Balance	PA 11	A 5
18 220 00	Tastenknopf Power on/off	Knob Power on/off	PA 12	A 4
31 126 00	Druckfeder Tipptaste	Spring	PA 13	A 0
23 925 00	Stöpsel-Taste	Knob spacer	PA 14	A 1
31 863 00	Tastenknopf Speaker, Loudness	Knob Speaker, Loudness	PA 15	A 1
18 197 00	Druckfeder für Kappe	Spring	PA 16	A 0
18 196 00	Kappe	Adapter	PA 17	A 3
18 225 00	Tastenknopf direkt	Knob direct	PA 18	A 2
31 057 00	Druckfeder	Spring	PA 19	A 1

Explosionsdarstellung 6200 PA
Exploded view 6200 PA



Ersatzteilliste 6200 PA
Spare parts list 6200 PA

Bestell-Nr./Part. No.	Bezeichnung	Description	Position	Preisgruppe/ Price group
39 064 00	**Lautstärke-Poti kpl.**	**Volume resistor assembly**	**PA 20**	**C 9**
38 029 00	Drehwiderstand Lautstärke	Rotary resistor		C 3
39 065 00	**Netzschaltplatine**	**Power switch P.C.B.**	**PA 21**	**D 6**
11 241 00	Diode 1 N 4148	Diode 1 N 4148	D 501	A 2
23 999 00	Widerstand NTC 82 Ohm	NTC Resistor 82 Ohm	R 503	B 6
38 030 00	Netzschalter	Power switch	S 501	B 2
38 070 00	Relais SDS IR 2 A 24 V	Relay SDS IR 2 A 24 V	REL 501	B 9
23 397 00	Buchse Klinken Kopfhörer	Headphone jack	BU 501	A 9
18 239 00	Ringkerntrafo	Power transformer		F 0
39 076 00	**Endstufen-Netzteilplatine**	**Output-power supply P.C.B.**	**PA 22**	**F 9**
23 964 00	Transistor BC 547 B T 092	Transistor BC 547 B T 092	T 301 303	A 4
31 849 00	Transistor BC 557 B T 092	Transistor BC 557 B T 092	T 302, 304	A 1
31 317 00	Zenerdiode ZPD 5,6	Zenerdiode ZPD 5,6	D 302	A 1
38 007 00	Zenerdiode ZPD 18	Zenerdiode ZPD 18	D 306	A 1
23 951 00	Diode 1 N 4148 (K)	Diode 1 N 4148 (K)	D 301, 303, 307, 106-108	A 2
31 463 00	Diode 1 N	Diode 1 N	D 105, 304, 305	A 1
31 729 00	Diode 1 N 4002	Diode 1 N 4002	D 109, 110	A 2
31 159 00	Diode P 600 G	Output-power supply P.C.B.	D 101-104	A 6
38 062 00	Gleichrichter B 80 C 800	Rectifier B 80 C 800	GL 101	A 4
38 064 00	Drossel 100 µH	Micro inductor 100 µH	Dr 101, 102	A 2
31 915 00	IC STK 4231 5 E	IC STK 4231 5 E	IC 201	E 1
38 060 00	IC MC 7818 CT	IC MC 7818 CT	IC 101	A 6
38 061 00	IC MC 7918 CT	IC MC 7918 CT	IC 102	A 6
38 067 00	Thermoschalter	Thermo switch	S 301	B 4
38 070 00	Relais SDS IR 2 A		REL 301	B 9
39 057 00	**Klangregler-Platine**	**Control P.C.B.**	**PA 23**	**E 0**
31 962 00	Drehwiderstand 20 K Höhen	Rotary resistor Treble	R 831, 832	B 2
31 963 00	Drehwiderstand 10 K Tiefen	Rotary resistor Bass	R 811, 812	B 2
31 964 00	Drehwiderstand Balance	Rotary resistor Balance	R 833, 834	B 2
31 961 00	IC MC 33078 P	IC MC 33078 P	IC 801-803	A 6
38 027 00	Schiebetaste	Push switch	Loudness	A 8
39 067 00	**LED Platine**	**LED P.C.B.**	**PA 24**	**C 9**
38 074 00	LED SLP-471 D gelb	LED SLP 471 D yellow	Function	A 4
38 147 00	LED SLP-171 D rot	LED SLP 171 D red	Direct	A 4
38 054 00	LED-Halter	Holder LED	6 X	A 2
39 060 00	**Quellenschalterplatine**	**Function switch P.C.B.**	**PA 25**	**E 3**
31 961 00	IC MC 33078 P	IC MC 33078 P	IC 601-606	A 6
38 028 00	Tastatur 5fach	Key set 5 functions	B-ART	C 1
23 578 00	Chinch-Buchse 4fach	Chinch jack (4 jacks)	3 X	B 0
39 066 00	**Direkt-Taste kpl.**	**Direct switch P.C.B. assembly**	**PA 26**	**C 3**
38 026 00	Schiebetaste	Push switch	Direct	B 0
39 074 00	**Lautsprecherumschaltplatine**	**Speaker switch P.C.B. assembly**	**PA 27**	**C 2**
38 095 00	Tastensatz 2fach	Key set 2 functions Speaker	A/B	B 2
39 068 00	**Equalizeranschluß kpl.**	**EQ connector assembly**	**PA 28**	**C 0**
38 069 00	Chinch-Buchse 2fach	Chinch jack (2 jacks)	2 X EQ	A 7
39 077 00	**Lautsprecheranschluß kpl.**	**Speaker connector assembly**	**PA 29**	**C 2**
38 031 00	Anschlußklemme	Push terminal	LSA/B	B 1